INVENTORS

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File 347:JAPIO Dec 1976-2009/Nov(Updated 100228)
         (c) 2010 JPO & JAPIO
File 350:Derwent WPIX 1963-2010/UD=201021
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         (c) format only 2010 Dialog
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         (c) 2010 Elsevier B.V.
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         (c) 2010 Elsevier Eng.  Info. Inc.
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         (c) 2010 Elsevier B.V.
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         (c) 2007 CSA.
File 144:Pascal 1973-2010/Mar W2
         (c) 2010 INIST/CNRS
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         (c) 2010 CSA.
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         (c) 2010 FIZ TECHNIK
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         (c) 2010 ProQuest Info&Learning
File  65:Inside Conferences 1993-2010/Mar 17
         (c) 2010 BLDSC all rts. reserv.
File  74:Int.Pharm.Abs 1970-2010/Dec B1
         (c) 2010 The Thomson Corporation
File 103:Energy SciTec 1974-2010/Feb B1
         (c) 2010 Contains copyrighted material
File 399:CA SEARCH(R) 1967-2010/UD=15214
         (c) 2010 American Chemical Society
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Set     Items   Description
S1         40   AU=PAFFORD J?
S2         46   AU=PAFFORD, J?
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S3        1360   AU=BOYD L?
S4         738   AU=BOYD, L?
S5        1036   AU=MCKAY W?
S6         784   AU=MCKAY, W?
S7         726   AU=RAY E?
S8         738   AU=RAY, E?
S9         127   AU=VAN HOECK J?
S10         64   AU=VAN HOECK, J?
S11       4895   S1:S10
S12         55   S11 AND (BONE?()GRAFT?)
S13         41   RD  (unique items)
S14         15   S13 AND SPACER?
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? **t s14/3,k/1-15**

Dialog eLink: Order File History
14/3,K/1 (Item 1 from file: 350)
DIALOG(R)File 350: Derwent WPIX

0020142559 *Drawing available*
WPI Acc no: 2010-C35560/201019
Related WPI Acc No: 1998-271755; 1999-243095; 2000-037801; 2005-505975; 2007-706829
Textured bone allograft e.g. tibial material useful to fill intervertebral space to prevent disc space collapse, comprises closely spaced discrete/continuous, pyramidal/conical protrusions comprising triangular shaped cross-section
Patent Assignee: BOYD L M (BOYD-I); COATES B J (COAT-I); POYNER J W (POYN-I); RAY E F (RAYE-I); VAN HOECK J E (VHOE-I)
Inventor: **BOYD L M**; COATES B J; POYNER J W; **RAY E F**; **VAN HOECK J E**

Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20100057207	A1	20100304	US 2009458653	A	20090720	201019	B
			US 2004766504	A	20040127		
			US 2002114675	A	20020402		
			US 2000484354	A	20000118		
			US 1999448086	A	19991123		
			US 1997948135	A	19971009		
			US 1997902937	A	19970730		
			US 1996740031	A	19961023		

Priority Applications (no., kind, date): US 1996740031 A 19961023; US 1997902937 A 19970730; US 1997948135 A 19971009; US 1999448086 A 19991123; US 2000484354 A 20000118; US 2002114675 A 20020402; US 2004766504 A 20040127; US 2009458653 A 20090720

Patent Details						
Patent Number	**Kind**	**Lan**	**Pgs**	**Draw**	**Filing Notes**	
US 20100057207	A1	EN	31	38	Continuation of application	US 2004766504
					C-I-P of application	US 2002114675
					Continuation of application	US 2000484354
					C-I-P of application	US 1999448086
					Continuation of application	US 1997948135
					Continuation of application	US 1997902937
					Division of application	US 1996740031
					Continuation of patent	US 6371988
					Continuation of patent	US 5989289
					C-I-P of patent	US 7276081

Original Titles:Bone grafts Inventor: **BOYD L M**... ...**RAY E F**... ...**VAN HOECK J E Alerting Abstract** ... 10 **Spacer** Original Publication Data by AuthorityArgentina**Publication No.** Inventor name & address:**Boyd, Lawrence M**... ...**Van Hoeck, James E Original Abstracts:** Spinal **spacers 20** are provided for fusion of a motion segment. The **spacers** include a load bearing member **21** having a wall **22** sized for engagement within a... ... factor in, a pharmaceutically acceptable carrier. In one embodiment the load bearing member includes a **bone graft** impregnated in an osteogenic composition. In another embodiment, the osteogenic composition **30** is packed within a chamber **25** defined in the graft. Any suitable configuration of a **bone graft** is contemplated, including bone dowels, D-shaped **spacers** and cortical rings. A spinal **spacer 300** for engagement between vertebrae is also provided which includes a body **301** formed of... ... define an arcuate pocket **370** therebetween for trapping vertebral bone to resist migration of the **spacer 300**. In one embodiment, the grooves **350** are arranged in series in that all of...

0016991765 *Drawing available*
WPI Acc no: 2007-706829/200766

Related WPI Acc No: 1997-258606; 1997-258607; 1998-271755; 1999-243095; 2000-037801; 2005-505975; 2010-C35560

Bone graft, i.e. spinal spacer, for insertion between adjacent vertebrae, includes cortical bone slice having superior and inferior bone engaging surfaces, and set of migration resistant grooves, teeth and/or blades

Patent Assignee: WARSAW ORTHOPEDIC INC (WRSW)
Inventor: COATES B J; POYNER J W; **VAN HOECK J**

Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 7276081	B1	20071002	US 1995543563	A	19951016	200766	B
			US 1996603675	A	19960220		
			US 1996603676	A	19960220		
			US 1996740031	A	19961023		
			US 1997902937	A	19970730		
			US 1997948135	A	19971009		
			US 1999448086	A	19991123		

Priority Applications (no., kind, date): US 1995543563 A 19951016; US 1996603675 A 19960220; US 1996603676 A 19960220; US 1996740031 A 19961023; US 1997902937 A 19970730; US 1997948135 A 19971009; US 1999448086 A 19991123

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 7276081	B1	EN	20	20	C-I-P of application	US 1995543563
					C-I-P of application	US 1996603675
					C-I-P of application	US 1996603676
					C-I-P of application	US 1996740031
					Continuation of application	US 1997902937
					Continuation of application	US 1997948135
					Continuation of patent	US 5989289
					C-I-P of patent	US 6423095

Bone graft, i.e. spinal spacer, for insertion between adjacent vertebrae, includes cortical bone slice having superior and inferior bone engaging... Original Titles:Bone grafts ...Inventor: **VAN HOECK J Alerting Abstract** ...NOVELTY - A **bone graft** for insertion between adjacent vertebrae, comprises a cortical bone slice from a long bone. The... USE - For use as spinal **spacer** (300) for insertion between adjacent vertebrae... ...ADVANTAGE - The advantages of **bone grafts** are combined with the

advantages of metals, without the corresponding disadvantages. The graft resists migration of the implanted **spacers**, yet encourages bone ingrowth and avoids stress shielding; and restores the intervertebral disc space and... ...the risk of complications. The need for metal cages or internal fixation is eliminated. The **spacer** speeds the patient's recovery by reducing surgical time, avoiding painful donor surgery and inducing... ...DESCRIPTION OF DRAWINGS - The figure is a top elevational view of a **spacer** having migration resistance grooves... ...300 Spinal **spacer** Original Publication Data by AuthorityArgentina**Publication No.** ...Inventor name & address:**Van Hoeck, James Original Abstracts:**A spinal **spacer 300** for engagement between vertebrae is provided which includes a body **301** formed of a... ... define an arcuate pocket **370** therebetween for trapping vertebral bone to resist migration of the **spacer 300**. In one embodiment, the grooves **350** are arranged in series in that all of... **Claims:**What is claimed is:1. A **bone graft** for insertion between adjacent vertebrae, said graft comprising a cortical bone slice from a long...

Dialog eLink: Order File History
14/3,K/3 (Item 3 from file: 350)
DIALOG(R)File 350: Derwent WPIX

0015156395 *Drawing available*
WPI Acc no: 2005-505975/200551
Related WPI Acc No: 1998-271755; 1999-243095; 2000-037801; 2007-706829; 2010-C35560
Textured bone allograft for stabilization of spinal column, includes closely spaced protrusions such that each protrusion includes triangular shaped cross-section
Patent Assignee: BOYD L M (BOYD-I); COATES B J (COAT-I); POYNER J W (POYN-I); RAY E F (RAYE-I); VAN HOECK J E (VHOE-I)
Inventor: **BOYD L M**; COATES B J; POYNER J W; **RAY E F**; **VAN HOECK J E**

Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20050165483	A1	20050728	US 2004766504	A	20040127	200551	B

Priority Applications (no., kind, date): US 2004766504 A 20040127

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
US 20050165483	A1	EN	32	38	

Original Titles:Bone grafts Inventor: **BOYD L M**... ...**RAY E F**... ...**VAN HOECK J E**

Alerting Abstract ... ADVANTAGE - Provides **spacers** for engagement between vertebrae which resist migration of the implanted **spacers**. Encourage ingrowth and avoids stress shielding. Allows the use of **bone grafts** without the need for metal cages or internal fixation. Enables restoration of the intervertebral disc... Original Publication Data by AuthorityArgentina**Publication No.** Inventor name & address:**Ray, Eddie F. III**... ...**Boyd, Lawrence M**... ...**Van Hoeck, James E Original Abstracts:**Spinal **spacers 20** are provided for fusion of a motion segment. The **spacers** include a load bearing member **21** having a wall **22** sized for engagement within a... ... factor in, a pharmaceutically acceptable carrier. In one embodiment the load bearing member includes a **bone graft** impregnated in an osteogenic composition. In another embodiment, the osteogenic composition **30** is packed within a chamber **25** defined in the graft. Any suitable configuration of a **bone graft** is contemplated, including bone dowels, D-shaped **spacers** and cortical rings. A spinal **spacer 300** for engagement between vertebrae is also provided which includes a body **301** formed of... ... define an arcuate pocket **370** therebetween for trapping vertebral bone to resist migration of the **spacer 300**. In one embodiment, the grooves **350** are arranged in series in that all of...

14/3,K/4 (Item 4 from file: 350)
DIALOG(R)File 350: Derwent WPIX

0014783555
WPI Acc no: 2005-131237/200514
XRAM Acc no: C2005-043232
Composition useful as implant for tissue engineering, comprises demineralized bone matrix, and collagen protein, in which composition is cross-linked through amide linkage
Patent Assignee: DRAPEAU S J (DRAP-I); EVERAERTS F (EVER-I); MCKAY W F (MCKA-I); TORRIANNI M (TORR-I); SDGI HOLDINGS INC (SDGI)
Inventor: DRAPEAU S J; EVERAERTS F; EVERAERTS F J L; **MCKAY W F**; TORRIANNI M; TORRIANNI M W; DRAPEAU S; **MCKAY W**

Patent Family (8 patents, 107 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20050020506	A1	20050127	US 2003626571	A	20030725	200514	B
WO 2005011764	A1	20050210	WO 2004US23557	A	20040722	200514	E
EP 1648530	A1	20060426	EP 2004778878	A	20040722	200628	E
			WO 2004US23557	A	20040722		
AU 2004261150	A1	20050210	AU 2004261150	A	20040722	200660	E
KR 2006052891	A	20060519	WO 2004US23557	A	20040722	200675	E
			KR 2006701784	A	20060125		

JP 2007500043	W	20070111	WO 2004US23557	A	20040722	200707	E
			JP 2006521921	A	20040722		
CN 1842350	A	20061004	CN 200480024685	A	20040722	200715	E
IN 200600369	P2	20070706	WO 2004US23557	A	20040722	200769	E
			IN 2006KN369	A	20060220		

Priority Applications (no., kind, date): US 2003626571 A 20030725

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20050020506	A1	EN	14	7		
WO 2005011764	A1	EN				
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
EP 1648530	A1	EN			PCT Application	WO 2004US23557
					Based on OPI patent	WO 2005011764
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR					
AU 2004261150	A1	EN			Based on OPI patent	WO 2005011764
KR 2006052891	A	KO			PCT Application	WO 2004US23557
					Based on OPI patent	WO 2005011764
JP 2007500043	W	JA	20		PCT Application	WO 2004US23557
					Based on OPI patent	WO 2005011764
IN 200600369	P2	EN			PCT Application	WO 2004US23557

...Inventor: **MCKAY W F**... ...**MCKAY W Alerting Abstract** ...I) is useful for promoting bone formation or soft tissue formation. (I) is useful as **bone graft** substitute (e.g., as a void filler). (I) is useful for treating trauma injuries. **Technology Focus** ...or light. The collagen protein is cross-linked using pulsed light. (I) further comprises a **spacer** such as a polyoxyalkyleneamine **spacer** or a polyethylene glycol **spacer**. (I)

further comprises vinyl pyrrolidinone or methyl methacrylate. (I) further comprises an additive chosen from... **Extension Abstract** Original Publication Data by AuthorityArgentina**Publication No.** ...Inventor name & address:**MCKAY W F**... ...**MCKAY W F**... ...**MCKAY W**... ...**MCKAY W F**... ...**MCKAY W F**... ...**McKay, William F**... ...**MCKAY, William, F**

Dialog eLink: Order File History
14/3,K/5 (Item 5 from file: 350)
DIALOG(R)File 350: Derwent WPIX

0012765251 *Drawing available*
WPI Acc no: 2002-618923/200266
Related WPI Acc No: 2003-289661; 2005-466608
XRPX Acc No: N2002-490075
Spinal spacer for engagement between vertebrae, has connecting piece, formed from bone, which connecting lateral spacers together when inserted between vertebrae
Patent Assignee: WARSAW ORTHOPEDIC INC (WRSW); BOYD L M (BOYD-I); KOZAK J (KOZA-I); RAY E F (RAYE-I); SDGI HOLDINGS INC (SDGI)
Inventor: **BOYD L M**; KOZAK J; **RAY E F**; **BOYD L**; **RAY E**

Patent Family (9 patents, 99 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20020099444	A1	20020725	US 2001766948	A	20010122	200266	B
WO 2002065956	A1	20020829	WO 2002US1191	A	20020114	200267	E
US 6468311	B2	20021022	US 2001766948	A	20010122	200273	E
EP 1363566	A1	20031126	EP 2002720799	A	20020114	200380	E
			WO 2002US1191	A	20020114		
AU 2002251773	A1	20020904	AU 2002251773	A	20020114	200427	E
JP 2004522533	W	20040729	JP 2002565520	A	20020114	200452	E
			WO 2002US1191	A	20020114		
AU 2002251773	B2	20060316	AU 2002251773	A	20020114	200670	E
EP 1363566	B1	20090930	EP 2002720799	A	20020114	200964	E
			WO 2002US1191	A	20020114		
DE 60233861	E	20091112	DE 60233861	A	20020114	200975	E
			EP 2002720799	A	20020114		
			WO 2002US1191	A	20020114		

Priority Applications (no., kind, date): US 2001766948 A 20010122; US 2001766948 A 20010122

Patent Details						
Patent Number	**Kind**	**Lan**	**Pgs**	**Draw**	**Filing Notes**	
US 20020099444	A1	EN	23	14		
WO 2002065956	A1	EN				
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW					
EP 1363566	A1	EN			PCT Application	WO 2002US1191
					Based on OPI patent	WO 2002065956
Regional Designated States,Original	AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					
AU 2002251773	A1	EN			Based on OPI patent	WO 2002065956
JP 2004522533	W	JA	57		PCT Application	WO 2002US1191
					Based on OPI patent	WO 2002065956
AU 2002251773	B2	EN			Based on OPI patent	WO 2002065956
EP 1363566	B1	EN			PCT Application	WO 2002US1191
					Based on OPI patent	WO 2002065956
Regional Designated States,Original	AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR					
DE 60233861	E	DE			Application	EP 2002720799
					PCT Application	WO 2002US1191
					Based on OPI patent	EP 1363566
					Based on OPI patent	WO 2002065956

Spinal spacer for engagement between vertebrae, has connecting piece, formed from bone, which connecting lateral spacers together when inserted between vertebrae

Inventor: **BOYD L M**... ...**RAY E F**... ...**BOYD L**... ...**RAY E Alerting Abstract**

...NOVELTY - The spinal **spacer** (10) consists of two lateral **spacers** (12,13) for spacing

the vertebrae, and a connecting piece (28) for connecting the lateral **spacers** together when inserted between the vertebrae. The connecting piece is formed from a bone. ... a modular **bone graft**; a **bone graft** fusion; and a manufacturing method for spinal **spacer**. ... ... DESCRIPTION OF DRAWINGS - The figure shows the perspective view of the spinal **spacer**.... ... 10 Spinal **spacer** ... ... 12,13 Lateral **spacers** Original Publication Data by AuthorityArgentina**Publication No.** ...Inventor name & address:**BOYD L M**... ...**RAY E F**... ...**RAY E F**... ...**BOYD L M**... ...**BOYD L M, US**... ...**RAY E F, US**... ...**BOYD, Lawrence, M**... ...**RAY, Eddie, F., III**... ...**BOYD L, US**... ...**RAY E, US**... ...**Boyd, Lawrence M**... ...**Ray, Eddie F. III**... ...**Boyd, Lawrence M**... ...**BOYD, Lawrence, M**... ...**RAY, Eddie, F., III Original Abstracts:**An interbody fusion device (10) for engagement between vertebrae includes a pair of lateral **spacers** (12, 13) for spacing the vertebrae, and a connecting member (28) adapted to couple together the lateral **spacers** (12, 13) when inserted between the vertebrae. The connecting member (28), individual lateral **spacers** (12, 13), or the entire spinal **spacer** (10) can be made of bone in order to promote fusion of the vertebrae. The... ... An interbody fusion device for engagement between vertebrae includes a pair of lateral **spacers** for spacing the vertebrae, and a connecting member adapted to couple together the lateral **spacers** when inserted between the vertebrae. The connecting member, individual lateral **spacers**, or the entire spinal **spacer** can be made of bone in order to promote fusion of the vertebrae. The modular... ... An interbody fusion device for engagement between vertebrae includes a pair of lateral **spacers** for spacing the vertebrae, and a connecting member adapted to couple together the lateral **spacers** when inserted between the vertebrae. The connecting member, individual lateral **spacers**, or the entire spinal **spacer** can be made of bone in order to promote fusion of the vertebrae. The modular... ... An interbody fusion device (10) for engagement between vertebrae includes a pair of lateral **spacers** (12, 13) for spacing the vertebrae, and a connecting member (28) adapted to couple together the lateral **spacers** (12, 13) when inserted between the vertebrae. The connecting member (28), individual lateral **spacers** (12, 13), or the entire spinal **spacer** (10) can be made of bone in order to promote fusion of the vertebrae. The... ...**Claims:**A spinal implant for engagement between vertebrae, comprising: a pair of lateral **spacers** (12, 13) formed of bone for spacing the vertebrae, said lateral **spacers** each having upper and lower vertebrae engaging surfaces (24, 25) adapted to engage the vertebrae, said lateral **spacers** each having opposite lateral (22) and medial (14) sides disposed between said upper and lower... ... engaging surfaces; and a connecting member (28) constructed and arranged to couple together said lateral **spacers** at said medial sides when inserted between the vertebrae; **characterized in that** a portion of... ... What is claimed is:**1**. A spinal **spacer** for engagement between vertebrae, comprising:a pair of lateral **spacers** for spacing the vertebrae; anda connecting member formed from bone, wherein said connecting member is adapted to couple together said lateral **spacers** when inserted between the vertebrae... ... What is claimed is:1. A spinal **spacer** for engagement between vertebrae, comprising:a pair of lateral **spacers** made of bone remnant for spacing the vertebrae, wherein each of said lateral **spacers** has a medial side, an arcuate lateral side, beveled edges, and a pair of grooved... ... said connecting member has a pair of rails engaged with said channels of said lateral **spacers**, wherein said rails have a dovetail cross-sectional profile, wherein said connecting member has beveled...

14/3,K/6 (Item 6 from file: 350)
DIALOG(R)File 350: Derwent WPIX

0010166740 *Drawing available*
WPI Acc no: 2000-475943/200041
Related WPI Acc No: 2000-482756
Interbody fusion spacer for insertion between intervertebral discs of spine to stabilize spine, has concave surfaces formed to ends to receive outer convex surface of another interbody fusion spacer
Patent Assignee: WARSAW ORTHOPEDIC INC (WRSW); BOYD L M (BOYD-I); BURKUS J K (BURK-I); DORCHAK J D (DORC-I); ESTES B T (ESTE-I); RAY E F (RAYE-I); SDGI HOLDINGS INC (SDGI)
Inventor: **BOYD L M**; BURKUS J K; DORCHAK J D; ESTES B T; **RAY E F**; RAY I E F; BOYD M; BURKUS K; DORCHAK D; ESTES T; **RAY E**

Patent Family (16 patents, 89 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2000041655	A2	20000720	WO 2000US604	A	20000111	200041	B
AU 200029633	A	20000801	AU 200029633	A	20000111	200054	E
EP 1139930	A2	20011010	EP 2000908251	A	20000111	200167	E
			WO 2000US604	A	20000111		
JP 2002534212	W	20021015	JP 2000593269	A	20000111	200282	E
			WO 2000US604	A	20000111		
AU 764981	B	20030904	AU 200029633	A	20000111	200368	E
AU 2003266465	A1	20040115	AU 2003266465	A	20031204	200442	NCE
EP 1139930	B1	20050914	EP 2000908251	A	20000111	200560	E
			WO 2000US604	A	20000111		
DE 60022620	E	20051020	DE 60022620	A	20000111	200571	E
			EP 2000908251	A	20000111		
			WO 2000US604	A	20000111		
EP 1609445	A1	20051228	EP 2000908251	A	20000111	200603	E
			EP 200576786	A	20000111		
ES 2248049	T3	20060316	EP 2000908251	A	20000111	200622	E
DE 60022620	T2	20060622	DE 60022620	A	20000111	200643	E
			EP 2000908251	A	20000111		
			WO 2000US604	A	20000111		

AU 2003266465	B2	20061214	AU 2003266465	A	20031204	200729	NCE
CA 2360424	C	20080826	CA 2360424	A	20000111	200858	E
			WO 2000US604	A	20000111		
US 7534265	B1	20090519	US 1999115388	P	19990111	200934	E
			WO 2000US604	A	20000111		
			US 2002869813	A	20020103		
JP 4312964	B2	20090812	JP 2000593269	A	20000111	200953	E
			WO 2000US604	A	20000111		
US 20090254181	A1	20091008	US 1999115388	P	19990111	200966	E
			WO 2000US604	A	20000111		
			US 2002869813	A	20020103		
			US 2009383191	A	20090320		

Priority Applications (no., kind, date): US 1999115388 P 19990111; WO 2000US604 A 20000111; US 2002869813 A 20020103; AU 2003266465 A 20031204; US 2009383191 A 20090320

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2000041655	A2	EN	45	21		
National Designated States,Original	AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
Regional Designated States,Original	AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW					
AU 200029633	A	EN			Based on OPI patent	WO 2000041655
EP 1139930	A2	EN			PCT Application	WO 2000US604
					Based on OPI patent	WO 2000041655
Regional Designated States,Original	AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
JP 2002534212	W	JA	52		PCT Application	WO 2000US604
					Based on OPI patent	WO 2000041655
AU 764981	B	EN			Previously issued patent	AU 200029633
					Based on OPI patent	WO 2000041655

AU 2003266465	A1	EN			Division of patent	AU 764981
EP 1139930	B1	EN			PCT Application	WO 2000US604
					Based on OPI patent	WO 2000041655
Regional Designated States,Original	AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
DE 60022620	E	DE			Application	EP 2000908251
					PCT Application	WO 2000US604
					Based on OPI patent	EP 1139930
					Based on OPI patent	WO 2000041655
EP 1609445	A1	EN			Division of application	EP 2000908251
					Division of patent	EP 1139930
Regional Designated States,Original	AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
ES 2248049	T3	ES			Application	EP 2000908251
					Based on OPI patent	EP 1139930
DE 60022620	T2	DE			Application	EP 2000908251
					PCT Application	WO 2000US604
					Based on OPI patent	EP 1139930
					Based on OPI patent	WO 2000041655
AU 2003266465	B2	EN			Division of patent	AU 764981
CA 2360424	C	EN			PCT Application	WO 2000US604
					Based on OPI patent	WO 2000041655
US 7534265	B1	EN			Related to Provisional	US 1999115388
					PCT Application	WO 2000US604
					Based on OPI patent	WO 2000041655
JP 4312964	B2	JA	18		PCT Application	WO 2000US604
					Previously issued patent	JP 2002534212
					Based on OPI patent	WO 2000041655
US 20090254181	A1	EN			Related to Provisional	US 1999115388
					Continuation of application	WO 2000US604
					Continuation of application	US 2002869813
					Continuation of patent	US 7534265

Interbody fusion spacer for insertion between intervertebral discs of spine to stabilize spine, has concave surfaces formed to ends to receive outer convex surface of another interbody fusion spacer ...**Original Titles:**INTERVERTEBRAL **SPACERS** WITH SIDE WALL ACCESSIBLE INTERIOR CAVITY... ...INTERVERTEBRAL **SPACERS** WITH SIDE WALL ACCESSIBLE INTERIOR CAVITY ... ...Intervertebral **spacers** with side wall accessible interior cavity ... ...The **spacer** between vertebrals which has an approachable side wall in an internal hole... ...Intervertebral **spacers** with side wall accessible interior cavity ... ...Intervertebral **spacers** with side wall accessible interior cavity ... ...INTERVERTEBRAL **SPACERS** WITH SIDE WALL ACCESSIBLE INTERIOR CAVITY ... Inventor: **BOYD L M**... ...**RAY E F**... ...**RAY E Alerting Abstract** ...NOVELTY - The interbody fusion **spacer** (1100) has a long body (1110) having a sidewall (1140) extending between two ends (1120... ...are formed to the ends, to receive the outer convex surface of another interbody fusion **spacer**, when arranging interbody fusion **spacers** side-by-side. ... and/or osteoconductive material is composed of autograft, allograft, xenograft, demineralized bone, synthetic and natural **bone graft** substitute e.g. bioceramics, polymers. INDEPENDENT CLAIMS are also included for... ... a **spacer** inserting tool; and, a fusion bone growth promoting method... ... DESCRIPTION OF DRAWINGS - The figure shows the isometric view of the interbody fusion **spacer**.... ... 1100 Interbody fusion **spacer** Original Publication Data by AuthorityArgentina**Publication No.** ...Inventor name & address:**BOYD L M**... ...**RAY E F**... ...**RAY E F**... ...**BOYD L M**... ...**RAY E F**... ...**BOYD L M**... ...**RAY E**... ...**BOYD, Lawrence, M**... ...**BOYD, Lawrence, M**... ...**Boyd, Lawrence, M**... ...**RAY E F**... ...**Boyd, Lawrence M**... ...**RAY E F, US**... ...**Boyd, Lawrence M**... ...**RAY E F, US**... ...**BOYD, Lawrence, M Original Abstracts:**Intervertebral **spacers**, tools for implanting intervertebral **spacers** and methods of promoting fusion bone growth in the space between adjacent vertebrae are provided. The **spacers** include an elongated body having a first end, a second end and an outer surface... ... second ends has a discontinuity, such as a concave surface, for nesting with an adjacent **spacer**. The tools include **spacer** engaging means for engaging a **spacer** and occlusion means for blocking an opening defined in the **spacer**. In some embodiments, the occlusion means includes a plate extendible from the housing.In one... ... relative to the housing. The methods of promoting fusion bone growth include utilizing the inventive **spacers** described herein... ... There is provided an interbody fusion **spacer** comprising an elongated body having a first end wall, a second end wall, and a... ... cavity. There is further provided an interbody fusion implant system comprising a first interbody fusion **spacer** as described above and a second interbody fusion **spacer** having a second elongated body. The second elongated body has a third end wall, a... ... second side wall extending between said third and fourth end walls. The second interbody fusion **spacer** is nestable with said first interbody fusion **spacer**. ... ... for stabilizing vertebral-column widely.More specifically, this invention provides the apparatus which plants the **spacer** between vertebrals with the open chamber, and this **spacer**, and the method of accelerating|stimulating the growth of the fixed bone between the adjoining... ... Intervertebral **spacers** and methods of promoting fusion bone growth in the space between adjacent vertebrae are provided. The **spacers** include an elongated body having a first end, a second end and an outer surface... ... second ends has a discontinuity, such as a concave surface, for nesting with an adjacent

spacer. The methods of promoting fusion bone growth include utilizing the inventive **spacers** described herein... ... Intervertebral **spacers**, tools for implanting intervertebral **spacers** and methods of promoting fusion bone growth in the space between adjacent vertebrae are provided. The **spacers** include an elongated body having a first end, a second end and an outer surface... ... second ends has a discontinuity, such as a concave surface, for nesting with an adjacent **spacer**. The tools include **spacer** engaging means for engaging a **spacer** and occlusion means for blocking an opening defined in the **spacer**. In some embodiments, the occlusion means includes a plate extendible from the housing. In one... ... relative to the housing. The methods of promoting fusion bone growth include utilizing the inventive **spacers** described herein... ... Intervertebral **spacers**, tools for implanting intervertebral **spacers** and methods of promoting fusion bone growth in the space between adjacent vertebrae are provided. The **spacers** include an elongated body having a first end, a second end and an outer surface... second ends has a discontinuity, such as a concave surface, for nesting with an adjacent **spacer**. The tools include **spacer** engaging means for engaging a **spacer** and occlusion means for blocking an opening defined in the **spacer**. In some embodiments, the occlusion means includes a plate extendible from the housing.In one... ... relative to the housing. The methods of promoting fusion bone growth include utilizing the inventive **spacers** described herein... ...**Claims:**An interbody fusion **spacer** (1100; 1100'), comprising:an elongated body (1110) having a first end (1120; 1120'), a second... ... discontinuity (1118) aligned with a side wall discontinuity (1119) configured for nesting with an adjacent **spacer** (1200); andsaid side wall (1140) defining a main side wall opening (1160) to said... ... An interbody fusion **spacer** (1100, 1100'), comprising:an elongated body (1110) having a first end wall (1120, 1120'), a... ... The **spacer** for in-the-living-body fusion surgeriesWHEREIN:It is the expand|extended main body which... ... 1st edge part and the above-mentioned 2nd edge part might overlap with an adjacent **spacer**,It is a side wall discontinuity in the said side wall,Comprising:While aligning with... said side walls are several small opening for the interplantation of a bone,Comprising:The **spacer** which demarcates several small opening extended into the said internal hole from the said outer... ... What is claimed is: 1. An interbody fusion **spacer**, comprising: an elongated generally cylindrical body having a length and an outer circumferential surface defining... ... body and aligned with the end wall discontinuity and configured for nesting with an adjacent **spacer**; and said side wall discontinuity defining a side wall opening to said interior chamber, said...

0009682827 *Drawing available*
WPI Acc no: 1999-059986/199905
Related WPI Acc No: 1997-051787
Spinal spacer - with body containing bone growth factor surrounded by sleeve of material stronger under compression than body

Patent Assignee: SDGI HOLDINGS INC (SDGI)
Inventor: MCKAY F; **MCKAY W F**

Patent Family (11 patents, 81 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 1998056319	A1	19981217	WO 1998US11606	A	19980611	199905	B
AU 199885668	A	19981230	AU 199885668	A	19980611	199920	E
EP 988003	A1	20000329	EP 1998936799	A	19980611	200020	E
			WO 1998US11606	A	19980611		
US 6039762	A	20000321	US 1995485842	A	19950607	200021	E
			US 1997872689	A	19970611		
JP 2002503135	W	20020129	WO 1998US11606	A	19980611	200211	E
			JP 1999502902	A	19980611		
AU 746485	B	20020502	AU 199885668	A	19980611	200238	E
EP 988003	B1	20050504	EP 1998936799	A	19980611	200530	E
			WO 1998US11606	A	19980611		
DE 69830052	E	20050609	DE 69830052	A	19980611	200538	E
			EP 1998936799	A	19980611		
			WO 1998US11606	A	19980611		
ES 2241154	T3	20051016	EP 1998936799	A	19980611	200571	E
DE 69830052	T2	20060112	DE 69830052	A	19980611	200611	E
			EP 1998936799	A	19980611		
			WO 1998US11606	A	19980611		
CA 2293758	C	20070102	CA 2293758	A	19980611	200703	E
			WO 1998US11606	A	19980611		

Priority Applications (no., kind, date): US 1995485842 A 19950607; US 1997872689 A 19970611

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
WO 1998056319	A1	EN	36	13	
National Designated States,Original	AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW				

Regional Designated States,Original	AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW					
AU 199885668	A	EN			Based on OPI patent	WO 1998056319
EP 988003	A1	EN			PCT Application	WO 1998US11606
					Based on OPI patent	WO 1998056319
Regional Designated States,Original	AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
US 6039762	A	EN			C-I-P of application	US 1995485842
					C-I-P of patent	US 5702449
JP 2002503135	W	JA	36		PCT Application	WO 1998US11606
					Based on OPI patent	WO 1998056319
AU 746485	B	EN			Previously issued patent	AU 9885668
					Based on OPI patent	WO 1998056319
EP 988003	B1	EN			PCT Application	WO 1998US11606
					Based on OPI patent	WO 1998056319
Regional Designated States,Original	AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
DE 69830052	E	DE			Application	EP 1998936799
					PCT Application	WO 1998US11606
					Based on OPI patent	EP 988003
					Based on OPI patent	WO 1998056319
ES 2241154	T3	ES			Application	EP 1998936799
					Based on OPI patent	EP 988003
DE 69830052	T2	DE			Application	EP 1998936799
					PCT Application	WO 1998US11606
					Based on OPI patent	EP 988003
					Based on OPI patent	WO 1998056319
CA 2293758	C	EN			PCT Application	WO 1998US11606
					Based on OPI patent	WO 1998056319

Spinal spacer - ...**Original Titles:**REINFORCED **BONE GRAFT** SUSTITUTES... ...REINFORCED **BONE GRAFT** SUSTITUTES... ...Reinforced **bone graft** substitutes... ...REINFORCED **BONE GRAFT** SUSTITUTES ...Inventor: **MCKAY W**

F Alerting Abstract ...An intervertebral fusion **spacer** consists of a body (11) with a height about that of a human disc space. The body is made of a deactivated **bone graft**. Dispersed in the body is a therapeutically effective amount of bone growth factor. A sleeve... ...ADVANTAGE - The **spacer** stimulates bone ingrowth and avoids the disadvantages of metal implants. It provides sufficient strength to... **Documentation Abstract** An intervertebral fusion **spacer** consists of a body (11) with a height about that of a human disc space. The body is made of a deactivated **bone graft**. Dispersed in the body is a therapeutically effective amount of bone growth factor. A sleeve... ... ADVANTAGE - The **spacer** stimulates bone ingrowth and avoids the disadvantages of metal implants. It provides sufficient strength to... ... of the opposite faces of the body with endplates of the adjacent vertebrae when the **spacer** is implanted between them. The sleeve is preferably attached to the endplates of the adjacent... ... have a kidney-shape to conform to the shape of the vertebral endplates. The deactivated **bone graft** may be natural bone processed to remove associated non-collagenous bone proteins. It contains native... **Documentation Abstract Image** Original Publication Data by AuthorityArgentina**Publication No.** Inventor name & address:**MCKAY W F**... ...**MCKAY, William, F**... ...**MCKAY, William, F**... ...**McKay, William F**... ...**MCKAY, WILLIAM, F., 3870 MCELRIE COVE, MEMPHIS, TN 38133, US Original Abstracts:**One embodiment of a spinal **spacer** (10) includes a body (11) sized and configured for engagement between adjacent vertebrae (V). The... ... One embodiment of a spinal **spacer** 10 includes a body 11 sized and configured for engagement between adjacent vertebrae V. The... ... One embodiment of a spinal **spacer** (10) includes a body (11) sized and configured for engagement between adjacent vertebrae (V). The... ...**Claims:**An interbody fusion **spacer**, comprising:a body (11) having an outer surface (13) and a height approximating the height... ... An interbody fusion **spacer**, comprising:a body having an outer surface and a height approximating the height of a...

Dialog eLink: Order File History
14/3,K/8 (Item 8 from file: 350)
DIALOG(R)File 350: Derwent WPIX

0009181810
WPI Acc no: 1999-105504/199909
Bone graft substitute composition - comprises natural selectively de-activated bone material which has been processed to remove associated non-collagenous bone proteins
Patent Assignee: SDGI HOLDINGS INC (SDGI)
Inventor: MCKAY F; **MCKAY W F**

Patent Family (11 patents, 81 countries)							
Patent Number	**Kind**	**Date**	**Application Number**	**Kind**	**Date**	**Update**	**Type**
WO 1998056433	A1	19981217	WO 1998US11611	A	19980611	199909	B

AU 199878185	A	19981230	AU 199878185	A	19980611	199920	E
US 5972368	A	19991026	US 1997873276	A	19970611	199952	E
EP 988070	A1	20000329	EP 1998926323	A	19980611	200020	E
			WO 1998US11611	A	19980611		
US 6261586	B1	20010717	US 1997873276	A	19970611	200142	E
			US 1999386560	A	19990831		
AU 738218	B	20010913	AU 199878185	A	19980611	200164	E
JP 2002503992	W	20020205	WO 1998US11611	A	19980611	200212	E
			JP 1999502905	A	19980611		
EP 988070	B1	20040915	EP 1998926323	A	19980611	200460	E
			WO 1998US11611	A	19980611		
DE 69826273	E	20041021	DE 69826273	A	19980611	200469	E
			EP 1998926323	A	19980611		
			WO 1998US11611	A	19980611		
ES 2227842	T3	20050401	EP 1998926323	A	19980611	200524	E
DE 69826273	T2	20050922	DE 69826273	A	19980611	200562	E
			EP 1998926323	A	19980611		
			WO 1998US11611	A	19980611		

Priority Applications (no., kind, date): US 1997873276 A 19970611; US 1999386560 A 19990831

Patent Details						
Patent Number	**Kind**	**Lan**	**Pgs**	**Draw**	**Filing Notes**	
WO 1998056433	A1	EN	56	5		
National Designated States,Original	AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW					
Regional Designated States,Original	AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW					
AU 199878185	A	EN			Based on OPI patent	WO 1998056433
EP 988070	A1	EN			PCT Application	WO 1998US11611
					Based on OPI patent	WO 1998056433
Regional Designated	AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					

States,Original						
US 6261586	B1	EN			Continuation of application	US 1997873276
					Continuation of patent	US 5972368
AU 738218	B	EN			Previously issued patent	AU 9878185
					Based on OPI patent	WO 1998056433
JP 2002503992	W	JA	47		PCT Application	WO 1998US11611
					Based on OPI patent	WO 1998056433
EP 988070	B1	EN			PCT Application	WO 1998US11611
					Based on OPI patent	WO 1998056433
Regional Designated States,Original	AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
DE 69826273	E	DE			Application	EP 1998926323
					PCT Application	WO 1998US11611
					Based on OPI patent	EP 988070
					Based on OPI patent	WO 1998056433
ES 2227842	T3	ES			Application	EP 1998926323
					Based on OPI patent	EP 988070
DE 69826273	T2	DE			Application	EP 1998926323
					PCT Application	WO 1998US11611
					Based on OPI patent	EP 988070
					Based on OPI patent	WO 1998056433

Bone graft substitute composition... Original Titles:KNOCHENTRANSPLANTAT-COMPOSITE UND -**SPACERN** ... ...KNOCHENTRANSPLANTAT-COMPOSITE UND -**SPACERN** ... ...**BONE GRAFT** COMPOSITES AND **SPACERS** ... ...KNOCHENTRANSPLANTAT-COMPOSITE UND -**SPACERN** ... ...**BONE GRAFT** COMPOSITES AND **SPACERS** ... ...**Bone graft** composites and **spacers**. ... ...**Bone graft** composites and **spacers**. ... ...**BONE GRAFT** COMPOSITES AND **SPACERS** ...Inventor: **MCKAY W F Alerting Abstract** ...**Bone graft** substitute composition (A) comprises natural selectively de-activated bone material which has been processed to... ...USE - (A) is used in the form of a **spacer** for maintaining a space between two adjacent vertebrae. (A) is an elastic body which promotes **Documentation Abstract Bone graft** substitute composition (A) comprises natural selectively de-activated bone material which has been processed to... ...USE - (A) is used in the form of a **spacer** for maintaining a space between two adjacent vertebrae. (A) is an elastic body which promotes... ...BMP-2. The de-activated bone is bovine bone. (A) in the form of a **spacer** has a superior wall for contacting one of the vertebrae, an inferior wall for contacting...

...adjacent and between the superior wall and the inferior wall, defining a through hole.The **spacer** is derived from a femoral ring or bone dowel. The **spacer** comprises a chamber which is packed with the carrier and BGF. The **spacer** is fully absorbable after implantation in about 5 month. (A) has the radiopacity after implantation...
Documentation Abstract Image Original Publication Data by AuthorityArgentina**Publication No.** ...Inventor name & address:**MCKAY, William, F**... ...**MCKAY, William, F**... ...**McKay, William F**... ...**McKay, William F**... ...**MCKAY, WILLIAM, F., 3870 MCELRIE COVE, MEMPHIS, TN 38133, US Original Abstracts:**A **bone graft** substitute including a composition of natural selectively deactivated bone material which has been processed to... ... stimulate bone growth of a bone growth factor in synergistic combination with said bone material. **Spacers** composed of the **bone graft** substitute composition and methods for using the **spacers** are also provided... ... A **bone graft** substitute including a composition of natural selectively deactivated bone material which has been processed to... ... bone growth factor in a pharmaceutically acceptable carrier in synergistic combination with said bone material. **Spacers** composed of the **bone graft** substitute composition methods for using the **spacers** are also provided... ... A **bone graft** substitute including a composition of natural selectively deactivated bone material which has been processed to... ... bone growth factor in a pharmaceutically acceptable carrier in synergistic combination with said bone material. **Spacers** composed of the **bone graft** substitute composition methods for using the **spacers** are also provided... ... A **bone graft** substitute including a composition of natural selectively deactivated bone material which has been processed to... ... stimulate bone growth of a bone growth factor in synergistic combination with said bone material. **Spacers** composed of the **bone graft** substitute composition and methods for using the **spacers** are also provided. ...**Claims:**A **bone graft** substitute composition, comprising:natural selectively deactivated bone material which has been processed to remove associated... ... A **bone graft** substitute composition, comprising:natural selectively deactivated bone material which has been processed to remove associated... ... A **spacer** for maintaining a space between a pair of adjacent vertebrae in a spine, comprising:a...

14/3,K/9 (Item 9 from file: 350)
DIALOG(R)File 350: Derwent WPIX

0009065380
WPI Acc no: 1998-271755/199824
Related WPI Acc No: 1997-258606; 1997-258607; 1998-100795; 1999-243095; 2000-037801; 2007-706829; 2005-505975; 2010-C35560
Spinal spacers for fusion of motion segments - include a bone graft which is impregnated with an osteogenic composition to stimulate bone growth.
Patent Assignee: BOYD L M (BOYD-I); MCKAY W F (MCKA-I); PAFFORD J (PAFF-I); RAY E F (RAYE-I) ; VAN HOECK J E (VHOE-I); SDGI HOLDING INC

(SDGI); SDGI HOLDINGS INC (SDGI)
Inventor: **BOYD L M**; **MCKAY W F**; **PAFFORD J**; **RAY E F**; **VAN HOECK J E**

Patent Family (17 patents, 78 countries)							
Patent Number	**Kind**	**Date**	**Application Number**	**Kind**	**Date**	**Update**	**Type**
WO 1998017209	A2	19980430	WO 1997US19108	A	19971021	199824	B
AU 199749946	A	19980515	AU 199749946	A	19971021	199838	E
EP 955961	A2	19991117	EP 1997912864	A	19971021	199953	E
			WO 1997US19108	A	19971021		
JP 2000507484	W	20000620	WO 1997US19108	A	19971021	200036	E
			JP 1998519610	A	19971021		
KR 2000052740	A	20000825	WO 1997US19108	A	19971021	200121	E
			KR 1999703540	A	19990422		
AU 732421	B	20010426	AU 199749946	A	19971021	200128	E
AU 200157667	A	20011011	AU 199749946	A	19971021	200171	NCE
			AU 200157667	A	20010726		
US 6371988	B1	20020416	US 1996740031	A	19961023	200232	E
			US 2000484354	A	20000118		
US 20030195629	A1	20031016	US 1995543563	A	19951016	200369	E
			US 1996603676	A	19960220		
			US 1996740031	A	19961023		
			US 2000484354	A	20000118		
			US 2002114675	A	20020402		
EP 955961	B1	20040331	EP 1997912864	A	19971021	200426	E
			WO 1997US19108	A	19971021		
			EP 200475078	A	19971021		
DE 69728424	E	20040506	DE 69728424	A	19971021	200434	E
			EP 1997912864	A	19971021		
			WO 1997US19108	A	19971021		
EP 1438935	A2	20040721	EP 1997912864	A	19971021	200447	E
			EP 200475078	A	19971021		
AU 773116	B2	20040520	AU 199749946	A	19971021	200462	NCE
			AU 200157667	A	20010726		
ES 2218668	T3	20041116	EP 1997912864	A	19971021	200477	E
US 20050004672	A1	20050106	US 1995543563	A	19951016	200504	E
			US 1996603676	A	19960220		

			US 1996740031	A	19961023			
			US 2000484354	A	20000118			
			US 2002114675	A	20020402			
			US 2004781058	A	20040218			
CA 2547680	A1	19980430	CA 2269342	A	19971021	200654	E	
			CA 2547680	A	19971021			
CA 2269342	C	20060912	CA 2269342	A	19971021	200661	E	
			WO 1997US19108	A	19971021			

Priority Applications (no., kind, date): US 1995543563 A 19951016; US 1996603676 A 19960220; US 1996740031 A 19961023; US 2000484354 A 20000118; AU 200157667 A 20010726; US 2002114675 A 20020402; US 2004781058 A 20040218

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 1998017209	A2	EN	100	59		
National Designated States,Original	AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW					
Regional Designated States,Original	AT BE CH DE DK EA ES FI FR GB GH GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW					
AU 199749946	A	EN			Based on OPI patent	WO 1998017209
EP 955961	A2	EN			PCT Application	WO 1997US19108
					Based on OPI patent	WO 1998017209
Regional Designated States,Original	AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
JP 2000507484	W	JA	100		PCT Application	WO 1997US19108
					Based on OPI patent	WO 1998017209
KR 2000052740	A	KO		61	PCT Application	WO 1997US19108
					Based on OPI patent	WO 1998017209
AU 732421	B	EN			Previously issued patent	AU 9749946
					Based on OPI patent	WO 1998017209
AU 200157667	A	EN			Division of application	AU 199749946
					Division of patent	AU 732421
US 6371988	B1	EN			Division of application	US 1996740031

US 20030195629	A1	EN			C-I-P of application	US 1995543563
					C-I-P of application	US 1996603676
					Division of application	US 1996740031
					Continuation of application	US 2000484354
					Continuation of patent	US 6371988
EP 955961	B1	EN			PCT Application	WO 1997US19108
					Related to application	EP 200475078
					Based on OPI patent	WO 1998017209
Regional Designated States,Original	AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
DE 69728424	E	DE			Application	EP 1997912864
					PCT Application	WO 1997US19108
					Based on OPI patent	EP 955961
					Based on OPI patent	WO 1998017209
EP 1438935	A2	EN			Division of application	EP 1997912864
					Division of patent	EP 955961
Regional Designated States,Original	AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
AU 773116	B2	EN			Division of application	AU 199749946
					Previously issued patent	AU 200157667
ES 2218668	T3	ES			Application	EP 1997912864
					Based on OPI patent	EP 955961
US 20050004672	A1	EN			C-I-P of application	US 1995543563
					C-I-P of application	US 1996603676
					Division of application	US 1996740031
					Continuation of application	US 2000484354
					Continuation of application	US 2002114675
					Continuation of patent	US 6371988
					C-I-P of patent	US 6423095
CA 2547680	A1	EN			Division of application	CA 2269342
CA 2269342	C	EN			PCT Application	WO 1997US19108
					Based on OPI patent	WO 1998017209

Spinal spacers for fusion of motion segments... ...include a bone graft which is impregnated with an osteogenic composition to stimulate bone growth. ...**Original Titles:**Spinal **spacer** ... ...SPINAL **SPACER** ... ...**Bone grafts** ... ...**Bone grafts** ... ...**Bone grafts**. ... ...SPINAL **SPACER** Inventor: **BOYD L M**... ...**MCKAY W F**... ...**PAFFORD J**... ...**RAY E F**... ...**VAN HOECK J E Alerting Abstract** ...The following is claimed, e.g. (A) spinal **spacer**, comprising a load bearing member (LBM) which has a wall sized for engagement within a space between adjacent vertebrae to maintain the space. The LBM includes a **bone graft** which is impregnated with an osteogenic composition to stimulate osteoinduction. The composition includes a pure osteogenic factor in a carrier.(B) hollow spinal **spacer**, for engagement between vertebrae, comprising: (a) an anterior wall which has a convexly curved anterior... ...USE - The **spacers** may be used for fusion of spinal motion segments. The **spacers** may be engaged between vertebrae to encourage bone ingrowth. They restore the intervertebral disc space... ...ADVANTAGE - The **spacers** avoid disadvantages associated with metal implants, and provide a stable scaffold for bone ingrowth before fusion occurs. They do not require metal cages or internal fixation. The **spacers** can be inserted using known methods **Documentation Abstract** ...A) Spinal **spacer**, comprising a load bearing member (LBM) which has a wall sized for engagement within a space between adjacent vertebrae to maintain the space. The LBM includes a **bone graft** which is impregnated with an osteogenic composition to stimulate osteoinduction. The composition includes a pure... ... B) Hollow spinal **spacer**, for engagement between vertebrae, comprising... ... USE - The **spacers** may be used for fusion of spinal motion segments. The **spacers** may be engaged between vertebrae to encourage bone ingrowth. They restore the intervertebral disc space... ... ADVANTAGE - The **spacers** avoid disadvantages associated with metal implants, and provide a stable scaffold for bone ingrowth before fusion occurs. They do not require metal cages or internal fixation. The **spacers** can be inserted using known methods... ... PREFERRED **SPACER** - The osteogenic factor is a purified bone morphogenic protein (BMP) isolated from bone. It is... ... has a diameter larger than the height of the space between the adjacent vertebrae. The **spacer** may comprise a second osteogenic composition, packed within the chamber, to stimulate osteoinduction... ... at least two opposite bone engaging surfaces for contacting a corresponding adjacent vertebra, when the **spacer** is implanted between the vertebrae... ... surfaces defines surface roughenings, e.g., knurlings or ratchetings. The member is usually a hollow **spacer** as described in (B... ... EXAMPLE - The figure shows a **spacer** (10) which is a bone dowel soaked with an osteogenic composition to stimulate osteoinduction... **Documentation Abstract Image** Original Publication Data by AuthorityArgentina**Publication No.** Inventor name & address:**PAFFORD J**... ...**VAN HOECK J E**... ...**RAY E F**... ...**MCKAY W F**... ...**BOYD L M**... ...**MCKAY W F**... ...**PAFFORD J**... ...**RAY E F**... ...**BOYD L M**... ...**VAN HOECK J E**... ...**Pafford, John**... ...**Boyd, Lawrence M**... ...**McKay, William F**... ...**Ray, Eddie F., III**... ...**Van Hoeck, James E**... ...**PAFFORD, John, 2613 Fox Hill Circle East, Germantown, TN 38139, US**... ...**BOYD, Lawrence, M., 5105 Lynbar Avenue, Memphis, TN 38117, US**... ...**MCKAY, William, F., 3870 McElrie Cove, Memphis, TN 38133, US**... ...**RAY,**

Eddie, F., III, 8691 Cedar Farms, Cordova, TN 38018, US... ...**VAN HOECK, James, E., 754 Tealwood Lane, Cordova, TN 38018, US**... ...**PAFFORD, John**... ...**BOYD, Lawrence, M**... ...**MCKAY, William, F**... ...**RAY, Eddie, F., III**... ...**VAN HOECK, James, E**... ...**PAFFORD J**... ...**BOYD L M**... ...**MCKAY W F**... ...**RAY E F**... ...**VAN HOECK J E**... ...**Pafford, John**... ...**Boyd, Lawrence M**... ...**McKay, William F**... ...**Ray, Eddie F. III**... ...**Van Hoeck, James E**... ...**Pafford, John**... ...**Boyd, Lawrence M**... ...**McKay, William F**... ...**Ray, Eddie F. III**... ...**Van Hoeck, James E**... ...**Pafford, John**... ...**Boyd, Lawrence M**... ...**McKay, William F**... ...**Van Hoeck, James E**... ...**PAFFORD, JOHN, 2613 FOX HILL CIRCLE EAST, GERMANTOWN, TN 38139, US**... ...**BOYD, LAWRENCE, M., 5105 LYNBAR AVENUE, MEMPHIS, TN 38117, US**... ...**MCKAY, WILLIAM, F., 3870 MCELRIE COVE, MEMPHIS, TN 38133, US**... ...**RAY, EDDIE, F., III, 8691 CEDAR FARMS, CORDOVA, TN 38018, US**... ...**VAN HOECK, JAMES, E., 754 TEALWOOD LANE, CORDOVA, TN 38018, US Original Abstracts:**Spinal **spacers** (20) are provided for fusion of a motion segment. The **spacers** include a load bearing member (21) having a wall (22) sized for engagement within a... ... factor in a pharmaceutically acceptable carrier. In one embodiment the load bearing member includes a **bone graft** impregnated in an osteogenic composition. In another embodiment, the osteogenic composition (30) is packed within a chamber (25) defined in the graft. Any suitable configuration of a **bone graft** is contemplated, including bone dowels, D-shaped **spacers** and cortical rings... ... Spinal **spacers** (20) are provided for fusion of a motion segment. The **spacers** include a load bearing member (21) having a wall (22) sized for engagement within a... ... factor in a pharmaceutically acceptable carrier. In one embodiment the load bearing member includes a **bone graft** impregnated in an osteogenic composition. In another embodiment, the osteogenic composition (30) is packed within a chamber (25) defined in the graft. Any suitable configuration of a **bone graft** is contemplated, including bone dowels, D-shaped **spacers** and cortical rings... ... Spinal **spacers 20** are provided for fusion of a motion segment. The **spacers** include a load bearing member **21** having a wall **22** sized for engagement within a... ... factor in a pharmaceutically acceptable carrier. In one embodiment the load bearing member includes a **bone graft** impregnated in an osteogenic composition. In another embodiment, the osteogenic composition **30** is packed within a chamber **25** defined in the graft. Any suitable configuration of a **bone graft** is contemplated, including bone dowels, D-shaped **spacers** and cortical rings... ... Spinal **spacers 20** are provided for fusion of a motion segment. The **spacers** include a load bearing member **21** having a wall **22** sized for engagement within a... ... factor in a pharmaceutically acceptable carrier. In one embodiment the load bearing member includes a **bone graft** impregnated in an osteogenic composition. In another embodiment, the osteogenic composition **30** is packed within a chamber **25** defined in the graft. Any suitable configuration of a **bone graft** is contemplated, including bone dowels, D-shaped **spacers** and cortical rings... ... Spinal **spacers 20** are provided for fusion of a motion segment. The **spacers** include a load bearing member **21**having a wall **22** sized for engagement within a space... ... factor in a pharmaceutically acceptable carrier. In one embodiment the load bearing member includes a **bone graft** impregnated in an osteogenic composition. In another embodiment, the osteogenic composition **30** is packed within a chamber **25**defined in the graft. Any suitable configuration of a **bone graft** is contemplated, including bone dowels, D-shaped **spacers** and cortical rings... ... Spinal

spacers (20) are provided for fusion of a motion segment. The **spacers** include a load bearing member (21) having a wall (22) sized for engagement within a... ... factor in a pharmaceutically acceptable carrier. In one embodiment the load bearing member includes a **bone graft** impregnated in an osteogenic composition. In another embodiment, the osteogenic composition (30) is packed within a chamber (25) defined in the graft. Any suitable configuration of a **bone graft** is contemplated, including bone dowels, D-shaped **spacers** and cortical rings. **Claims:**A spinal **spacer** for engagement between vertebrae, comprising:an anterior wall having a convexly curved anterior surface, and... ... A spinal **spacer** comprising a load bearing member of bone (10, 20, 20', 21, 40, 50, 50', 110... ... What is claimed:**1**. A spinal **spacer** comprising a load bearing member having a wall sized for engagement within a space between adjacent vertebrae to maintain the space, said load bearing member including a **bone graft** impregnated with an effective amount of an osteogenic composition to stimulate osteoinduction, said osteogenic composition... ... 1. (Canceled)**2**. The **spacer** of claim 73 wherein said osteogenic factor is a purified bone morphogenic protein isolated from... ... A hollow spinal **spacer** for engagement between vertebrae, comprising:an anterior wall having a convexly curved anterior surface and...

14/3,K/10 (Item 10 from file: 350)
DIALOG(R)File 350: Derwent WPIX

0007095834 *Drawing available*
WPI Acc no: 1995-122715/199516
XRPX Acc No: N1995-097074
Anterior interbody fusion device - includes pair of lateral spacers each having opposite end-plate-faces adapted to contact each of adjacent vertebrae when spacers are within intra-discal space
Patent Assignee: DANEK MEDICAL INC (DANE-N)
Inventor: **BOYD L**; KOZAK J

Patent Family (9 patents, 60 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 5397364	A	19950314	US 1993134049	A	19931012	199516	B
WO 1995010248	A1	19950420	WO 1994US11003	A	19940930	199521	E
AU 199479217	A	19950504	AU 199479217	A	19940930	199536	E
ZA 199407959	A	19950726	ZA 19947959	A	19941012	199536	E
EP 725607	A1	19960814	EP 1994929926	A	19940930	199637	E
			WO 1994US11003	A	19940930		
JP 9503416	W	19970408	WO 1994US11003	A	19940930	199724	E

			JP 1995511847	A	19940930			
AU 680309	B	19970724	AU 199479217	A	19940930	199737	E	
CN 1137232	A	19961204	CN 1994194428	A	19940930	199805	E	
TW 349009	A	19990101	TW 1994109311	A	19941007	199925	E	

Priority Applications (no., kind, date): US 1993134049 A 19931012

Patent Details						
Patent Number	**Kind**	**Lan**	**Pgs**	**Draw**	**Filing Notes**	
US 5397364	A	EN	18	28		
WO 1995010248	A1	EN	40	28		
National Designated States,Original	AM AU BB BG BR BY CA CN CZ EE FI GE HU JP KE KG KP KR KZ LK LT LV MD MG MN MW NO NZ PL RO RU SD SI SK TJ TT UA UZ VN					
Regional Designated States,Original	AT BE CH DE DK ES FR GB GR IE IT KE LU MC MW NL OA PT SD SE SZ					
AU 199479217	A	EN			Based on OPI patent	WO 1995010248
ZA 199407959	A	EN	41			
EP 725607	A1	EN	18	28	PCT Application	WO 1994US11003
					Based on OPI patent	WO 1995010248
Regional Designated States,Original	AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE					
JP 9503416	W	JA	42		PCT Application	WO 1994US11003
					Based on OPI patent	WO 1995010248
AU 680309	B	EN			Previously issued patent	AU 9479217
					Based on OPI patent	WO 1995010248
TW 349009	A	ZH				

...**includes pair of lateral spacers each having opposite end-plate-faces adapted to contact each of adjacent vertebrae when spacers are within intra-discal space**
Inventor: **BOYD L**... **Alerting Abstract** ...The device includes a pair of lateral **spacers** and a pair of central **spacers**, each sized for percutaneous introduction through a disc resection portal in the disc annulus. Each of the lateral **spacers** includes opposing side faces defining a channel while each of the central **spacers** includes arms at their opposite ends configured to be received within a channel of a corresponding lateral **spacer**. ...
...the components once assembled within the intradiscal space. The assembly of the

central and lateral **spacers** defines a cavity therebetween for insertion of **bone graft** material. The central and lateral **spacers** are configured so that the **bone graft** is oriented over the weakest, but most vascular and biologically active, bone of the vertebral body, while the lateral **spacers** are situated adjacent the disc annulus and over the strongest vertebral bone... ...ADVANTAGE - The multiple component aspect of the device permits the creation of a **bone graft** cavity at the most biologically and vascularly active area of the vertebral body, thereby encouraging Original Publication Data by AuthorityArgentina**Publication No.** ...Inventor name & address:**BOYD L**... ...**BOYD L**... ...**BOYD, Larry, 5105 Lynbar Avenue, Memphis, TN 38117, US**... ...**BOYD L**... ...**Boyd, Larry**... ...**BOYD, LARRY, US**... ...**BOYD L Original Abstracts:**An interbody fusion device (20) includes a pair of lateral **spacers** (21) and a **pair** of central **spacers** (22, 23), each **sized** for percutaneous introduction through a disc resection portal in the disc annulus. Each of the lateral **spacers** (21) includes opposing **side** faces (33) defining a channel (34) therein, while each of the central **spacers** (22, 23) includes **arms** (47, 57) at their opposite ends configured to be received within a channel (34) of a corresponding lateral **spacer** (21). The arms **and** channels are interlocking to prevent separation of the components once assembled within the intradiscal space. The assembly of the central and lateral **spacers** defines a cavity (**25**) therebetween for insertion of **bone graft** material. The **central and** lateral **spacers** are configured so **that** the **bone graft** cavity is **oriented over** the weakest, but most vascular and biologically active, bone of the vertebral body,while the lateral **spacers** are situated adjacent **the** disc annulus and over the strongest vertebral bone... ... An interbody fusion device includes a pair of lateral **spacers** and a pair of central **spacers**, each sized **for** percutaneous introduction through a disc **resection** portal in the disc annulus. Each of the lateral **spacers** includes opposing side faces defining a channel therein, **while** each of the central **spacers** includes arms at their opposite ends configured to **be** received within a channel of a corresponding lateral **spacer**. The arms and channels are interlocking to prevent **separation** of the components once assembled within the intradiscal space. The assembly of the central and lateral **spacers** defines a cavity therebetween for insertion of **bone graft** material. The central and lateral **spacers** are **configured so** that the **bone graft** cavity **is** oriented over the weakest, but **most vascular** and biologically active, bone of the vertebral body, while the lateral **spacers** are situated adjacent the disc annulus and over **the** strongest vertebral bone... ... An interbody fusion device (20) includes a pair of lateral **spacers** (21) and a pair of central **spacers** (22, 23), each sized for percutaneous **introduction** through a disc resection portal in **the** disc annulus. Each of the lateral **spacers** (21) includes opposing side faces (33) defining a channel (34) therein, while each **of** the central **spacers** (22, 23) includes arms (47, 57) at their opposite ends configured to be **received** within a channel (34) of a corresponding lateral **spacer** (21). The arms and channels are interlocking to prevent separation of the components **once** assembled within the intradiscal space. The assembly of the central and lateral **spacers** defines a cavity (25) therebetween for insertion of **bone graft** material. The central **and** lateral **spacers** are configured so that the **bone graft cavity** is oriented over the weakest, **but** most vascular and biologically active, **bone of** the vertebral body,while the lateral **spacers** are situated adjacent the disc annulus and over the strongest vertebral bone. **Claims:**The device includes a pair of lateral **spacers** and a pair of central **spacers**, each sized for percutaneous introduction through a disc resection portal in the disc annulus. Each of the lateral **spacers** includes

opposing side faces defining a channel while each of the central **spacers** includes arms at their opposite ends configured to be received within a channel of a corresponding lateral **spacer**.... ... the components once assembled within the intradiscal space. The assembly of the central and lateral **spacers** defines a cavity therebetween for insertion of **bone graft** material. The central and lateral **spacers** are configured so that the **bone graft** is oriented over the weakest, but most vascular and biologically active, bone of the vertebral body, while the lateral **spacers** are situated adjacent the disc annulus and over the strongest vertebral bone... ... area relative to the adjacent vertebrae, the interbody fusion device comprising: a pair of lateral **spacers**, each **having** opposite endplate faces adapted to contact each of the adjacent vertebrae when said lateral **spacers** are **within** the intradiscal space, and each having a side face defining a channel therein; and a first central **spacer** having **opposite** faces oriented toward each of the adjacent vertebrae when said first central **spacer** is **within** the intradiscal space, and further having opposite ends, each of said opposite ends configured to be slidably received within said channel in a corresponding one of said lateral **spacers**, wherein **said** pair of lateral **spacers** and **said** first central **spacer** are **sized** for individual introduction into the intradiscal space for assembly within the intradiscal space with said opposite ends of said first central **spacer** engaged **within** said channel in said corresponding one of said lateral **spacers.>**

14/3,K/11 (Item 1 from file: 5)
DIALOG(R)File 5: Biosis Previews(R)

0020335047 **Biosis No.:** 200800381986
Bone grafts

Author: Anonymous; Coates Bradley J; **Van Hoeck James**; Poyner Jeffrey W
Author Address: Rossville, TN USA**USA
Journal: Official Gazette of the United States Patent and Trademark Office Patents OCT 2 2007 2007
Patent Number: US 07276081 **Patent Date Granted:** October 02, 2007 20071002
Patent Classification: 623-1711 **Patent Assignee:** Warsaw Orthopedic Inc **Patent Country:** USA
ISSN: 0098-1133
Document Type: Patent
Record Type: Abstract
Language: English
Bone grafts

Author: ...**Van Hoeck James**

Abstract: A spinal **spacer** 300 for engagement between vertebrae is provided which includes a body 301 formed of a... ...define an arcuate pocket 370 therebetween for trapping vertebral bone to resist migration of the **spacer** 300. In one embodiment, the

grooves 350 are arranged in series in that all of...
DESCRIPTORS:
Methods & Equipment: bone graft--
Geographical Name:

Dialog eLink: USPTO Full Text Retrieval Options
14/3,K/12 (Item 2 from file: 5)
DIALOG(R)File 5: Biosis Previews(R)

16692879 **Biosis No.:** 200200286390
Bone grafts

Author: Pafford John (Reprint); **Boyd Lawrence M**; **McKay William F**; **Ray Eddie F III**; **Van Hoeck James E**
Author Address: Germantown, TN, USA**USA
Journal: Official Gazette of the United States Patent and Trademark Office Patents 1257 (3): Apr. 16, 2002 2002
Medium: e-file
Patent Number: US 6371988 **Patent Date Granted:** April 16, 2002 20020416 **Patent Classification:** 623-1711 **Patent Assignee:** SDGI Holdings, Inc. **Patent Country:** USA
ISSN: 0098-1133
Document Type: Patent
Record Type: Abstract
Language: English
Bone grafts

Author: Pafford John... ...**Boyd Lawrence M**... ...**McKay William F**... ...**Ray Eddie F III**... ...**Van Hoeck James E**

Abstract: Spinal **spacers** 20 are provided for fusion of a motion segment. The **spacers** include a load bearing member 21 having a wall 22 sized for engagement within a... ...factor in a pharmaceutically acceptable carrier. In one embodiment the load bearing member includes a **bone graft** impregnated in an osteogenic composition. In another embodiment, the osteogenic composition 30 is packed within a chamber 25 defined in the graft. Any suitable configuration of a **bone graft** is contemplated, including bone dowels, D-shaped **spacers** and cortical rings.
DESCRIPTORS:
Methods & Equipment: D-shaped **spacers**; ... ...**bone grafts**--... ...spinal **spacers**--
Geographical Name:

Dialog eLink: USPTO Full Text Retrieval Options
14/3,K/13 (Item 3 from file: 5)
DIALOG(R)File 5: Biosis Previews(R)

16254519 **Biosis No.:** 200100426358
Bone graft composites and spacers

Author: McKay William F
Journal: Official Gazette of the United States Patent and Trademark Office Patents 1248 (3): July 17, 2001 2001
Medium: e-file
Patent Number: US 6261586 **Patent Date Granted:** July 17, 2001 20010717 **Patent Classification:** 424-423 **Patent Assignee:** SDGI Holdings, Inc. **Patent Country:** USA
ISSN: 0098-1133
Document Type: Patent
Record Type: Abstract
Language: English
Bone graft composites and spacers

Author: McKay William F

Abstract: A **bone graft** substitute including a composition of natural selectively deactivated bone material which has been processed to... ...bone growth factor in a pharmaceutically acceptable carrier in synergistic combination with said bone material. **Spacers** composed of the **bone graft** substitute composition methods for using the **spacers** are also provided.
DESCRIPTORS:
Chemicals & Biochemicals: **bone graft** composites...
Miscellaneous Terms: Concept Codes: ...vertebral **spacers**

14/3,K/14 (Item 4 from file: 5)
DIALOG(R)File 5: Biosis Previews(R)

15698117 **Biosis No.:** 200000416430
Reinforced bone graft substitutes

Author: McKay William F
Journal: Official Gazette of the United States Patent and Trademark Office Patents 1232 (3): Mar. 21, 2000 2000
Medium: e-file
Patent Number: US 6039762 **Patent Date Granted:** March 21, 2000 20000321 **Patent Classification:** 623-17 **Patent Assignee:** SDGI Holdings, Inc. **Patent Country:** USA
ISSN: 0098-1133
Document Type: Patent

Record Type: Abstract
Language: English
Reinforced bone graft substitutes

Author: McKay William F

Abstract: One embodiment of a spinal **spacer** 10 includes a body 11 sized and configured for engagement between adjacent vertebrae V. The...
DESCRIPTORS:
Methods & Equipment: bone graft substitutes...
Geographical Name:

Dialog eLink: USPTO Full Text Retrieval Options
14/3,K/15 (Item 1 from file: 23)
DIALOG(R)File 23: CSA Technology Research Database

0009909861 IP Accession No: 200808-71-1243716; 200808-61-1343755; 20081201963; A08-99-1304450
Anterior interbody fusion device

Kozak, Jeffrey; **Boyd, Larry**
, USA
Publisher Url: http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&u =/netaht ml/PTO/search-adv.htm&r=1&p=1&f=G&l=50&d=PTXT&S1=53 97364.PN.&OS=pn/5397364&RS=PN/5397364

Document Type: Patent
Record Type: Abstract
Language: English
File Segment: Metadex; Mechanical & Transportation Engineering Abstracts; ANTE: Abstracts in New Technologies and Engineering; Aerospace & High Technology
Kozak, Jeffrey; **Boyd, Larry**

Abstract:
An interbody fusion device includes a pair of lateral **spacers** and a pair of central **spacers**, each sized for percutaneous introduction through a disc resection portal in the disc annulus. Each of the lateral **spacers** includes opposing side faces defining a channel therein, while each of the central **spacers** includes arms at their opposite ends configured to be received within a channel of a corresponding lateral **spacer**. The arms and channels are interlocking to prevent separation of the components once assembled within the intradiscal space. The assembly of the central and lateral **spacers** defines a cavity therebetween for insertion of **bone graft** material. The central and lateral **spacers** are configured so that the **bone graft** cavity is oriented over the weakest, but most vascular

and biologically active, bone of the vertebral body, while the lateral **spacers** are situated adjacent the disc annulus and over the strongest vertebral bone.

Descriptors: Spacers; Bones; Channels; Discs; Disks; Holes; Grafting; Assembly; Insertion; Locking; Separation
Identifiers:

PATENTS & NPL ABSTRACTS

show files

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File 347:JAPIO Dec 1976-2009/Nov(Updated 100228)
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File 350:Derwent WPIX 1963-2010/UD=201022
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File 155:MEDLINE(R) 1950-2010/Apr 02
         (c) format only 2010 Dialog
File   5:Biosis Previews(R) 1926-2010/Mar W4
         (c) 2010 The Thomson Corporation
File 972:EMBASE 1947-2010/Apr 05
         (c) 2010 Elsevier B.V.
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         (c) 2010 The IET
File  45:EMCare 2010/Mar W4
         (c) 2010 Elsevier B.V.
File 136:BioEngineering Abstracts 1966-2007/Jan
         (c) 2007 CSA.
File 144:Pascal 1973-2010/Mar W3
         (c) 2010 INIST/CNRS
File  24:CSA Life Sciences Abstracts 1966-2010/Apr
         (c) 2010 CSA.
File  23:CSA Technology Research Database 1963-2010/Feb
         (c) 2010 CSA.
File  95:TEME-Technology & Management 1989-2010/Feb W3
         (c) 2010 FIZ TECHNIK
File  35:Dissertation Abs Online 1861-2010/Feb
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File  74:Int.Pharm.Abs 1970-2010/Dec B1
         (c) 2010 The Thomson Corporation
File 103:Energy SciTec 1974-2010/Feb B1
         (c) 2010 Contains copyrighted material
File 399:CA SEARCH(R) 1967-2010/UD=15215
         (c) 2010 American Chemical Society
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? ds

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Set     Items   Description
S1    1479103   CORTICAL? OR CORTEX?
S2     131810   (BONE OR OSSEO? OR OSTERO? OR ORTHOPED? OR ORTHOPAED?
OR SPINE? OR VERTERBRA? OR SPIN? OR DISC?)(2N)(SPACE? OR DOWEL?)
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S3   15716587   DRUG OR DRUGS OR GROWTH?() FACTOR? OR  OSTEOGENIC?? OR
BMP OR RHBMP OR BONE ?()MORPHOGENIC?()PROTEIN? OR MORPHOGENIC? OR
HETERODIMER?
S4   21022498   MEDICINE? OR MEDICATION? OR MEDICAMENT? OR
PHARMACEUTICAL? OR  AGENT? OR EXCIPIENT?
S5   17184029   IMPREGNATE? OR PERMEA? OR  LOAD? OR INJECT? OR CARRIER?
OR MATRIX? OR POROUS? OR POROS? OR PERFORAT? OR FENESTRATE? OR
FORAMIN? OR FORAMEN? OR INTERSTIT? OR  INTERSTIC? OR MICROPOR? OR
NANOPOR? OR TORTUOUS? OR TORTUOUS?

S6       1231   S1 AND S2
S7     308078   S1 AND S3
S8     208673   S1 AND S4
S9        357   S6 AND S5
S10        84   S7 AND S9
S11        66   S8 AND S9
S12        26   S10 AND S11
S13        24   RD  (unique items)
S14         9   S13 NOT PY>1996
S15         7   S14(S)CORTICAL
S16     47916   OSTEOGENIC
S17        35   S6 AND S16
S18        21   S17 AND S5
S19        30   S14 OR S18
S20        24   RD  (unique items)
S21        10   S20 NOT PY>1996
S22      1537   S16 AND S1
S23       534   S22 AND S3
S24       463   S23 AND BONE?
S25       271   S24 AND S5
S26        37   S25 NOT PY>1996
S27        21   RD S26  (unique items)
```

? **t s21/3,k/1-10**

Dialog eLink: USPTO Full Text Retrieval Options

21/3,K/1 (Item 1 from file: 155)
DIALOG(R)File 155: MEDLINE(R)

06613650 **PMID:** 7246092

Osteogenic phenomena across endosteal bone-implant spaces with porous surfaced intramedullary implants.

Bobyn J D; Pilliar R M; Cameron H U; Weatherly G C
Acta orthopaedica Scandinavica (DENMARK) 1981 , 52 (2) p145-53 , **ISSN:** 0001-6470--Print 0001-6470--Linking **Journal Code:** 0370352

Publishing Model Print
Document type: Journal Article; Research Support, Non-U.S. Gov't
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Osteogenic phenomena across endosteal bone-implant spaces with porous surfaced intramedullary implants.

Porous surfaced femoral components of hip prostheses stabilized by tissue ingrowth are often situated a certain distance away from the endosteal **cortex** in the diaphysis. The purpose of this study was to examine the significance of this space between an implant and the **cortex** on bone growth into the **porous** surface of the implant. Intramedullary rods of different diameters with **porous** surface regions made of powder metal were inserted into the femurs of adult beagles. The... ...of 2.5, 3.2, 4.5, and 5.5 millimeters; this variation produced endosteal **bone**-implant surface **spaces** ranging from 0 to 4 millimeters. The animals were sacrificed at 4, 8, 12, and... ...generally surrounded by a thin shell of spongy bone which was joined to the endosteal **cortex** by bony trabeculae. This feature was most prominent for implants which were approximately 2 millimeters... ...developed up to and within those areas of implants which were in contact with the **cortex**. The development of this intramedullary type of bone could significantly contribute to the fixation strength of clinical **porous** surfaced prostheses whose stems do not completely fill the medulla. (

21/3,K/2 (Item 1 from file: 5)
DIALOG(R)File 5: Biosis Previews(R)

10838314 **Biosis No.:** 199192084085
FORMATION OF BONE IN TIBIAL DEFECTS IN A CANINE MODEL HISTOMORPHOMETRIC AND BIOMECHANICAL STUDIES

Author: MARKEL M D (Reprint); WIKENHEISER M A; CHAO E Y S
Author Address: ORTHOP BIOMECHANICS LAB, MAYO CLINIC, 200 FIRST ST SW, ROCHESTER, MINN 55905, USA**USA
Journal: Journal of Bone and Joint Surgery American Volume 73 (6): p 914-923 1991
ISSN: 0021-9355
Document Type: Article
Record Type: Abstract
Language: ENGLISH

Abstract: ...and then, at twelve weeks, reached a plateau of 77 per cent that of normal **cortical** bone. Anisotropy of the new bone that formed in the defect increased from 13.8... ...twelfth weeks; at twelve weeks, it was 22 per cent of the stiffness of normal **cortical** bone. Indentation stiffness increased 283 per cent between eight and twelve

weeks, despite insignificant changes in calcium content, amount of new **bone**, non-**osseous space**, water content, or volume of trabecular bone during this time. This change in indentation stiffness... ...such as quantitative computed tomography or dual-energy x-ray absorptiometry. Additionally, if bone-induction **agents**, such as bone morphogenetic protein, decalcified bone **matrix**, or various **growth factors**, are to be used to enhance healing of fractures, the cellular and structural characteristics of...

21/3,K/3 (Item 2 from file: 5)
DIALOG(R)File 5: Biosis Previews(R)

06871180 **Biosis No.:** 198375055123
PENETRATION OF CEFAZOLIN INTO NORMAL AND OSTEO MYELITIC CANINE CORTICAL BONE

Author: DALY R C (Reprint); FITZGERALD R H JR; WAHSINGTON J A II
Author Address: MAYO MED SCH, MAYO CLINIC, ROCHESTER, MINNESOTA 55905, USA**USA
Journal: Antimicrobial Agents and Chemotherapy 22 (3): p 461-469 1982
ISSN: 0066-4804
Document Type: Article
Record Type: Abstract
Language: ENGLISH
PENETRATION OF CEFAZOLIN INTO NORMAL AND OSTEO MYELITIC CANINE CORTICAL BONE

Abstract: The ability of cefazolin to cross the capillary membranes and its concentrations in the **interstitial** fluid spaces were studied in normal and osteomyelitic [Staphylococcus aureus] canine bone. The maximum extraction... ...of osteomyelitic tissue and the complex diffusional characteristics of cefazolin enhanced the ability of this **agent** to cross the endothelial cells lining the capillaries of osteomyelitic bone. Volume of distribution studies demonstrated that cefazolin was distributed in the plasma and **interstitial** fluid spaces of normal **cortical bone**. Although these **spaces** were increased 330 and 941% in osteomyelitic tissue, the distribution of cefazolin increased proportionally. There was a direct correlation between the calculated concentrations of cefazolin in the **interstitial** fluid spaces of normal and osteomyelitic **cortical** bone and the simultaneous serum levels in animals in which a steady-state equilibrium had... ...bone. Cefazolin can cross the capillary membranes of bone and achieve bactericidal concentrations in the **interstitial** fluid space of normal and osteomyelitic tissue.
Descriptors: STAPHYLOCOCCUS-AUREUS BACTERICIDAL CONCENTRATION ANTIBACTERIAL-**DRUG** PHARMACO KINETICS CAPILLARY PASSAGE **INTERSTITIAL** FLUID CONCENTRATION

21/3,K/4 (Item 1 from file: 972)
DIALOG(R)File 972: EMBASE

0076118631 **EMBASE/MEDLINE No:** 1995161346
Morphological effects of cortical bone capillaries. A functional TEM analysis with epinephrin, ATP and insulin

ZUR REAGIBILITAT VON KORTIKALEN KNOCHENKAPILLAREN. FUNKTIONELLE TEM-ANALYSE MIT ADRENALIN, ATP UND INSULIN

Dohler J.R.; Hennig F.F.; Hughes S.P.F.
Abt. Unfall/Wiederherstellungschir., Allgemeines Krankenhaus Altona, Postfach 50 01 21, D-22701 Hamburg, Germany
Corresp. Author/Affil: Dohler J.R.: Abt. Unfall/Wiederherstellungschir., Allgemeines Krankenhaus Altona, Postfach 50 01 21, D-22701 Hamburg, Germany

Langenbecks Archiv fur Chirurgie (LANGENBECKS ARCH. CHIR.) (Germany) June 19, 1995 , 380/3 (176-183)
CODEN: LAACB **ISSN:** 0023-8236
Document Type: Journal ; Article **Record Type:** Abstract
Language: German **Summary language:** German; English
Morphological effects of cortical bone capillaries. A functional TEM analysis with epinephrin, ATP and insulin

In order to study any morphological effects that vasoactive **drugs** might exert on **cortical** bone capillaries, Swiss mice received one intravenous bolus **injection** each of epinephrine, ATP and insulin. In one control group saline solution was **injected** and another was not treated. All animals were handled in the same way. A piece... ...and the thickening of the endothelium might reflect a decreased extravasal space and oedema of **cortical** bone that might cause the diffusion of minerals to take longer. Intracortical perfusion pressure would... ...bone perfusion rate increase. ATP might reduce the transcapillary diffusion time and increase the extravasal **space** in **cortical bone**. Apparently there are specific insulin receptors in **cortical** bone capillaries.
Drug Descriptors:
* adenosine triphosphate; *adrenalin; *insulin; *vasoactive **agent**
Medical Descriptors:
* capillary endothelium; ***cortical** bone
animal experiment; article; controlled study; diffusion; intravenous **drug** administration; morphology; mouse; nonhuman; transmission electron microscopy
Orig. Descriptors:
SECTION HEADINGS:

Cardiovascular Diseases and Cardiovascular Surgery
Orthopedic Surgery
Drug Literature Index

21/3,K/5 (Item 2 from file: 972)
DIALOG(R)File 972: EMBASE

0072360367 **EMBASE/MEDLINE No:** 1983196835
Fluid spaces in normal and osteomyelitic canine bone

Quinlan W.R.; Hall B.B.; Fitzgerald Jr. R.H.
Mayo Clin., Rochester, MN 55905, United States
Corresp. Author/Affil: : Mayo Clin., Rochester, MN 55905, United States

Journal of Laboratory and Clinical Medicine (J. LAB. CLIN. MED.) (United States)
September 1, 1983 , 102/1 (78-87)
CODEN: JLCMA **ISSN:** 0022-2143
Document Type: Journal **;** Article **Record Type:** Abstract
Language: English

When **cortical** bone is afflicted by an infectious process, significant alterations in the physiology and anatomy occur at the cellular level. Included in these alterations are modulations of the various fluid **spaces** of **cortical bone**. Volume of distribution studies with SUP 14C-labeled sucrose and 9 SUP 9Tc-labeled red... ...acute, subacute, and chronic osteomyelitis of the tibia were performed to quantitate the various fluid **spaces** in **cortical bone**. Additionally, the studies were performed in **cortical** bone from the radius and tibiae (following sham operations) to allow comparison with normal and control values. The total exchangeable water, vascular, and **interstitial** fluid spaces were increased in all three types of osteomyelitic bone. With one-way analysis... ...considered when one studies the ability of various antimicrobials to reach bactericidal concentrations in the **interstitial** fluid space, the primary site of **drug**-microorganism interaction.
Drug Descriptors:
*
erythrocyte tc 99m; radioisotope; unclassified **drug**
Medical Descriptors:
* **cortical** bone; *osteomyelitis; *Staphylococcus aureus

SECTION HEADINGS:
Anatomy, Anthropology, Embryology and Histology
Radiology
Nuclear **Medicine**
Orthopedic Surgery
Microbiology: Bacteriology, Mycology, Parasitology and Virology

General Pathology and Pathological Anatomy

21/3,K/6 (Item 3 from file: 972)
DIALOG(R)File 972: EMBASE

0071551024 **EMBASE/MEDLINE No:** 1980246056
The transcapillary passage and interstitial fluid concentration of penicillin in canine bone

Bloom J.D.; Fitzgerald Jr. R.H.; Washington II J.A.; Kelly P.J.
Mayo Clin., Rochester, Minn. 55901, United States
Corresp. Author/Affil: : Mayo Clin., Rochester, Minn. 55901, United States

Journal of Bone and Joint Surgery - Series A (J. BONE JT. SURG. SER. A) (United States) December 24, 1980 , 62/7 (1168-1175)
CODEN: JBJSA **ISSN:** 0021-9355
Document Type: Journal **;** Article **Record Type:** Abstract
Language: English
The transcapillary passage and interstitial fluid concentration of penicillin in canine bone

...of penicillin in serum and tibial bone tissue, and the concentration of penicillin in the **interstitial** fluid **space** of tibial **bone**. Extraction studies demonstrated that the capillary membranes in bone were readily traversed by benzyl penicillin. Penicillin concentrations in filed **cortical** and crushed cancellous bone samples, measured by both isotopic and biological assays, ranged from 1... ...cent of the penicillin in plasma was protein-bound, while 39% of the penicillin in **cortical** bone was tissue-bound and not biologically active. Studies of the distribution of benzyl penicillin... ...penicillin showed that it was distributed in equal concentrations in the plasma and in the **interstitial** fluid **spaces** of **bone**. The concentration of biologically active penicillin in the **interstitial** fluid **spaces** of **bone** correlated closely with the simultaneously observed plasma level in animals in which a steady-state...
Drug Descriptors:
*
radioisotope; unclassified **drug**
Medical Descriptors:
* blood vessel **permeability**; *bone; *capillary; *cell membrane **permeability**; ***drug** protein binding; ***interstitial** fluid
animal experiment; article; dog; **drug** bone level; intravenous **drug** administration; methodology; peripheral vascular system; pharmacokinetics
SECTION HEADINGS:
Nuclear **Medicine**

Orthopedic Surgery
Drug Literature Index

Dialog eLink: USPTO Full Text Retrieval Options
21/3,K/7 (Item 4 from file: 972)
DIALOG(R)File 972: EMBASE

0056588171 **EMBASE/MEDLINE No:** 2008963213C
Clinical and biochemical study of accidents in peridurography

Nagamine K.
Dept. Orthop. Surg., Sch. Med., Nagoya Univ., Nagoya, Japan
Corresp. Author/Affil: Nagamine K.: Dept. Orthop. Surg., Sch. Med., Nagoya Univ., Nagoya, Japan

Nagoya Journal of Medical Science (Nagoya J. Med. Sci.) December 1, 1970 , 32/3-4 (429-444)
ISSN: 0027-7622
Document Type: Journal **;** Article **Record Type:** Abstract
Language: English **Summary language:** English

...soluble contrast medium (Diatrizoate), and there is a report of accident when contrast medium was **injected** in the cranial portion of the subarachnoid space. Contrast medium **permeates** through the dura mater, with a **permeability** rate of about 0.4% in patients with normal meninges. Since some **agents** which affect carbohydrate metabolism were found to cause acute convulsions, and decrease of ATP production... ...decrease of ATP production. These results suggest that the water soluble contrast medium, which is **injected** in the subarachnoid space, stimulates the cerebral **cortex** and produces the metabolic disturbances of the brain which might have some relation to development...
Medical Descriptors:
*
brain; brain **cortex**; carbohydrate metabolism; clinical feature; clonic seizure; consciousness; convulsion; dura mater; examination; headache; hyperhidrosis; intraspinal **drug** administration; meninx; metabolic disorder; mitochondrial respiration; myalgia; patient; **permeability**; rat; side effect; speech; **spinal** cord; subarachnoid **space**
Orig. Descriptors:

Dialog eLink: USPTO Full Text Retrieval Options
21/3,K/8 (Item 1 from file: 45)
DIALOG(R)File 45: EMCare

0003077680 **EMCARE No:** 25303257

Dissociation of synchronization and excitability in furosemide blockade of epileptiform activity

Hochman D.W.; Baraban S.C.; Owens J.W.M.; Schwartzkroin P.A.
Department of Neurological Surgery, University of Washington, Seattle, WA 98195, United States
CORRESP. AUTHOR/AFFIL: Schwartzkroin P.A.: Department of Neurological Surgery, University of Washington, Seattle, WA 98195, United States

Science (SCIENCE) (United States) October 6, 1995 , 270/5233 (99-102)
CODEN: SCIEA **ISSN:** 0036-8075
DOCUMENT TYPE: Journal ; Article **RECORD TYPE:** Abstract
LANGUAGE: English **SUMMARY LANGUAGE:** English
NUMBER OF REFERENCES: 54

...experiments indicated that furosemide coincidentally blocked changes in extracellular space. In urethane-anesthetized rats, systemically **injected** furosemide blocked kainic acid-induced electrical discharges recorded from **cortex**. These results suggest that (i) neuronal synchronization involved in epileptiform activity can be dissociated from... ...furosemide-sensitive cell volume regulation, may be critical for synchronization of neuronal activity; and (iii) **agents** that affect extracellular volume may have clinical utility as antiepileptic **drugs**.

DESCRIPTORS:
*
animal experiment; animal model; anticonvulsive **agent**; brain **cortex**; cell volume; chloride; controlled study; **drug** activity; electrostimulation; epileptic **discharge**; extracellular **space**; hippocampus; intravenous **drug** administration; kainic acid; nonhuman; optics; priority journal; pyramidal nerve cell; rat; stimulus; synapse; urethan
TERMS (UNCONTROLLED):

19512453 PASCAL No.: 10-0141196

rhVEGF SUB 1 SUB 6 SUB 5 delivered in a **porous** beta -tricalcium phosphate scaffold accelerates bridging of critical-sized defects in rabbit
radii

PEI YANG; CHUNSHENG WANG; ZHIBIN SHI; XIN HUANG; XIAOQIAN DANG ; XUDONG LI; LIN Shien-Fong; KUNZHENG WANG
Department of Orthopaedics, Second Affiliated Hospital of Medical College
of Xi'an Jiaotong University, Xi'an, Shaanxi, China; Department of Cardiology, First Affiliated Hospital of Medical College of Xi'an Jiaotong

University, Xi'an, Shaanxi, China; Department of Orthopaedic Surgery Research Center, Health/Medical Center of University of Virginia, Charlottesville, Virginia, United States; Krannert Institute of Cardiology,
Indiana University School of Medicine, Indianapolis, Indiana, United States
Journal: Journal of biomedical materials research. Part A
, 2010, 92 (2
) 626-640
Language: English

rhVEGF SUB 1 SUB 6 SUB 5 delivered in a **porous** beta -tricalcium phosphate scaffold accelerates bridging of critical-sized defects in rabbit
radii
...combination of 3 mu g rhVEGF SUB 1 SUB 6 SUB 5 with a novel
porous beta -tricalcium phosphate (beta -TCP) scaffold coated with fibrin sealant (FS) to facilitate bone regeneration...

...of the rabbit radius, treated with rhVEGF SUB 1 SUB 6 SUB 5 incorporated
in **porous** beta -TCP scaffold by FS, can be completely bridged by **cortical** bone in 12 weeks. The **bone** marrow **space** was
also reformed histologically and radiologically at 12 weeks postsurgery in
the rhVEGF SUB 1...

English Descriptors: Bone defect; **Porous** material; Calcium Phosphates; Scaffold; Animal; Tissue engineering; Rabbit; Recombinant protein; Biomaterial; Osteogenesis; **Drug carrier**; Vascular endothelium **growth factor**; Human origin; In vitro; In vivo; Controlled release form; Treatment; Biomechanics; Biomedical engineering;
Control release...

...French Descriptors: osseuse; Materiau poreux; Calcium Phosphate; Echafaudage; Animal; Genie tissulaire; Lapin; Proteine recombinante; Biomateriau; Osteogenese; Vecteur **medicament**; Facteur croissance endothelium vasculaire; Origine humaine; In vitro; In vivo; Forme liberation controlee; Traitement; Biomecanique...

Spanish Descriptors: Perdida substancia hueso; Material **poroso**; Calcio Fosfato; Andamiaje; Animal; Ingenieria de tejidos; Conejo; Proteina recombinante; Biomaterial; Osteogenesis; Vector **medicamento**; Factor crecimiento endotelio vascular; Origen humano; In vitro; In vivo; Forma liberacion controlada; Tratamiento; Biomecanica
...

21/3,K/10 (Item 1 from file: 103)
DIALOG(R)File 103: Energy SciTec

04302772 AIX-29-030538; EDB-98-063187
Title: A first order approximation of the tumor absorbed dose prior to treatment with Sr-89
Author(s): Manetou, A. (NIMITS Hospital, Medical Physics Unit, Athens (Greece)); Toubanakis, N.; Lyra, M.; Lymouris, G. (Areteion University Hospital, Radiology Department, Athens (Greece))
Title: **Proceedings of the international conference on medical physics and biomedical engineering (MPBE '94). Vol. 2**
Author(s)/Editor(s): Spyrou, S.; Christofides, S.; Pattichis, C.S.; Keravnou, E.; Schizas, C.N.; Christodoulides, G. (eds.)
Corporate Source: Cyprus Association of Medical Physics and Biomedical Engineering (CAMPBE), Nicosia (Cyprus) Cyprus Univ., Nicosia (Cyprus). Dept. of Computer Science.
Conference Title: MPBE '94: 1. international conference on medical physics and biomedical engineering
Conference Location: Nicosia (Cyprus) **Conference Date:** 3-7 May 1994

Publication Date: 1994 p 566-574 (311 p)
Report Number(s): INIS-CY-0002 CONF-940530--
Order Number: DE98625476
ISBN: 9963-607-05-5
Language: English
Abstract: ...images are to be obtained over the first 8 hours after the Tc-99m-MDP **injection** and data are used to derive St-89 time retention curve. For the development of... ...on the time retention of the two radiopharmaceuticals for a compartment including bone surface and **bone space** of trabecular and **cortical** bone for normal adults were combined together. A linear relationship was derived between the time required for the same percentage uptake of the two radiopharmaceuticals after single **injection**. The absorbed dose in the principal metastases and normal bone, of the same type and...
Abstract:
Broader Terms: ...**DRUGS**; ... ...**MEDICINE**; ... ...NUCLEAR **MEDICINE**;
Identifiers:

t s27/3,k/1-21

Dialog eLink: Order File History
27/3,K/1 (Item 1 from file: 350)
DIALOG(R)File 350: Derwent WPIX

0007620075
WPI Acc no: 1996-238178/199624
Related WPI Acc No: 1994-166480
XRAM Acc no: C1996-075974
XRPX Acc No: N1996-199381
Prodn. of osteogenic compsns. - by mixing demineralised bone particles with carrier
Patent Assignee: OSTEOTECH INC (OSTE-N)
Inventor: PREWETT A B; STIKELEATHER R C

Patent Family (1 patents, 1 countries)							
Patent Number	**Kind**	**Date**	**Application Number**	**Kind**	**Date**	**Update**	**Type**
US 5510396	A	19960423	US 1992830934	A	19920204	199624	B
			US 1993119882	A	19930910		
			US 1994208432	A	19940309		

Priority Applications (no., kind, date): US 1992830934 A 19920204; US 1993119882 A 19930910; US 1994208432 A 19940309

Patent Details						
Patent Number	**Kind**	**Lan**	**Pgs**	**Draw**	**Filing Notes**	
US 5510396	A	EN	6	0	Continuation of application	US 1992830934
					Division of application	US 1993119882
					Division of patent	US 5314476

Prodn. of osteogenic compsns... ...by mixing demineralised bone particles with carrier Original Titles: Process for producing flowable **osteogenic** composition containing demineralized **bone** particles **Alerting Abstract** ...Prodn. of **osteogenic** compsns. comprises preparing demineralised **bone** particles and mixing the particles with a **carrier** to form a flowable mass that retains its cohesiveness and resists erosion after application to a **bone** defect. At least 60 wt.% of the particles are in the form of threads or... ...Pref. the **carrier** is a liq. polyhydroxy cpd. or a soln. of a solid polyhydroxy cpd.,

esp. glycerol... ...ADVANTAGE - Application of the compsns. to **bone** defects,eg. resulting from injury, infection, malignancy or developmental malformation, leads to rapid new **bone** ingrowth. **Documentation Abstract** Prodn. of **osteogenic** compsns. comprises preparing demineralised **bone** particles and mixing the particles with a **carrier** to form a flowable mass that retains its cohesiveness and resists erosion after application to a **bone** defect... ...ADVANTAGE - Application of the compsns. to **bone** defects,eg. resulting from injury, infection, malignancy or developmental malformation, leads to rapid new **bone** ingrowth... ...PREFERRED PROCESS - The compsns. comprise 5-90 (esp.20-80) wt.% demineralised **bone** particles and 10-95 (esp. 20-80) wt.% **carrier**. At least 60 wt.% of the particles have a ML of 10-100 mm, a ... ...and a ML:MT ratio of 50-100:1. The particles are derived from porcine **cortical**, cancellous or corticocancellous **bone**. ... ...The **carrier** is a liq. polyhydroxy cpd. or a soln. of a solid polyhydroxy cpd., esp. glycerol... ...monolaurate in propylene glycol, glycerol, monoacetin, diacetin or liq. polyethylene glycol. Various additives, e.g. **drugs**, amino acids, peptides, vitamins, minerals, collagen, mesenchymal stem cells, fibronectin, growth hormone, nucleic acids, surfactants... ...EXAMPLE - Demineralised **cortical bone** particles (100g) were mixed with 570g glycerol to form a compsn. with a putty-like **Documentation Abstract Image Title Terms** .../Index Terms/Additional Words: **BONE**; **Class Codes** Original Publication Data by AuthorityArgentina**Publication No. Original Abstracts:**Demineralized **bone** particles having a **median** length to median thickness ratio of at least about 10:1 are incorporated in an **osteogenic** composition useful for **repairing bone** defects. **Claims:**A process for producing an **osteogenic** composition **comprising** demineralized **bone** particles **which** comprises: a) preparing demineralized **bone** particles **of** which at least about 60 weight percent of said particles is made up of demineralized **bone** particles **substantially** in the shape of threads or filaments having a median length to median thickness ratio... ... thickness of from about 0.05 mm to about 2 mm; b) immersing the demineralized **bone** particles **in** a sufficient amount of **carrier** to **form** a flowable mass of the demineralized **bone** particles **in** the **carrier**; and, **c**) stirring the demineralized **bone** particles **while** immersed in the **carrier** to **provide** a quantity of entangled demineralized **bone** particles **within** the **carrier**, whereby **the** flowable mass maintains its cohesiveness and resists erosion subsequent to being applied to an osseous...

27/3,K/2 (Item 2 from file: 350)
DIALOG(R)File 350: Derwent WPIX

0005486965
WPI Acc no: 1991-088859/199113
Related WPI Acc No: 1994-056299; 1994-100289; 1995-283060
XRAM Acc no: C1991-037746
XRPX Acc No: N1991-068699
Flowable demineralised bone powder compsn. for bone repair - comprises demineralised osteogenic bone powder in a specified biocompatible carrier e.g. monosaccharide

Patent Assignee: OSTEOTECH INC (OSTE-N)
Inventor: MCBRAYER P A; O'LEARY R K; OLEARY R K

Patent Family (8 patents, 7 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
EP 419275	A	19910327	EP 1990310342	A	19900921	199113	B
JP 3210270	A	19910913	JP 1990250407	A	19900921	199143	E
US 5073373	A	19911217	US 1989410596	A	19890921	199202	E
			US 1990573458	A	19900827		
JP 1993055148	B	19930816	JP 1990250407	A	19900921	199335	E
US 5290558	A	19940301	US 1989410596	A	19890921	199409	E
			US 1990573458	A	19900827		
EP 419275	B1	19950125	EP 1990310342	A	19900921	199508	E
DE 69016331	E	19950309	DE 69016331	A	19900921	199515	E
			EP 1990310342	A	19900921		
US 5484601	A	19960116	US 1989410596	A	19890921	199609	E
			US 1991779401	A	19911018		

Priority Applications (no., kind, date): US 1989410596 A 19890921; US 1990573458 A 19900827; US 1991779401 A 19911017

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
EP 419275	A	EN				
Regional Designated States,Original	BE DE FR GB IT NL					
JP 1993055148	B	JA	5		Based on OPI patent	JP 03210270
US 5290558	A	EN	5	0	C-I-P of application	US 1989410596
					C-I-P of patent	US 5073373
EP 419275	B1	EN	9	0		
Regional Designated States,Original	BE DE FR GB IT NL					
DE 69016331	E	DE			Application	EP 1990310342
					Based on OPI patent	EP 419275
US 5484601	A	EN	3	0	Continuation of application	US 1989410596
					Continuation of patent	US 5073373

Flowable demineralised bone powder compsn. for bone repair... ...comprises demineralised osteogenic bone powder in a specified biocompatible carrier e.g. monosaccharide ...**Original Titles:**Flowable demineralized **bone** powder composition and its use in **bone** repair... ...Flowable demineralized **bone** powder composition and its use in **bone** repair... ...FLUID DEMINERALIZED POWDERED **BONE** COMPOSITION AND ITS USE IN **BONE** TREATMENT... ...Flowable demineralized **bone** powder composition and its use in **bone** repair... ...Flowable demineralized **bone** powder composition and its use in **bone** repair... ...Flowable demineralized **bone** powder composition and its use in **bone** repair **Alerting Abstract** ...A flowable compsn. for application to a **bone** defect site to promote new bonw growth at the site comprises a new **bone** growth-inducing amt. of demineralised **osteogenic bone** powder in a biocompatible **carrier** selected from liq. polyhydroxy cpd., liq. polyhydroxy cpd. deriv., liq. soln. of solid polyhydroxy cpd... ...Pref. the **carrier** is selected from monosaccharide, disaccharide or their derivs., and/or oligosaccharide or its deriv. (esp... ...USE/ADVANTAGE - The flowable demineralised **bone** powder compsn. is useful for surgical **bone** repair. The compsn. can be readily prepd. @(6pp Dwg.No 0/0) **Equivalent Alerting Abstract** ...New **bone** growth is promoted at a **bone** defect site using a flowable compsn. consisting of (A) pulverised, demineralised **osteogenic bone** powder, pref. of particle size 0.1-1.2, esp. 0.2-1.0mm, in (B) glycerol, monoacetin and/or diacetin as biocompatible **carrier**. ... ...The compsn. pref. also contains e.g. antiviral agent, amino acid, vitamin, enzyme, angiogenic **drug**, collagen lattice, mesenchymal agent, immunosuppressor, penetration enhancer. The compsn. contains 5-80, esp. 20-80 wt.% (A), which is esp. obtd. from **cortical** cancellous and/or cortico cancellous allogenic **bone** tissue... ...Bond powder compsn. comprises a dispersion of demineralised **osteogenic** bond powder dispersed with one or more biocompatible **carriers**. The **carrier** is glycerol or a glycerol mono- or di-ester; a mono- or di- or oligo... ...Opt. **bone morphogenic** protein, transforming **growth factor** and/or insulin-like **growth factor**, and/or collagen and insoluble collagen derivs., antibiotics, antiviral agents, antibacterial cpds., nutrients, hormones, enzymes... ...USE - The prods. are free-flowing liq. or paste compsns. which are easily applied to **bone** defect sites to promote new **bone** growth after **bone** injury, infection, malignancy, surgical treatment of malformation, etc.. **Technology Focus Title Terms** .../Index Terms/Additional Words: **BONE**; **Class Codes** Original Publication Data by AuthorityArgentina**Publication No. Original Abstracts:**A flowable demineralized **bone** powder composition is **provided** for use in surgical **bone** repair. ... ... A flowable demineralized **bone** powder composition is provided for use in surgical **bone** repair. ... ... A flowable demineralized **bone** powder composition is provided for use in surgical **bone** repair. ... ... A flowable demineralized **bone** powder composition is provided for use in surgical **bone** repair. **Claims:**1. A flowable composition for application to a **bone** defect **site** to promote new **bone** growth **at** the site which comprises a new **bone** growth-**inducing** amount of demineralized **osteogenic bone powder in** a biocompatible **carrier**, the **carrier** being **selected** from a member of the group consisting of liquid polyhydroxy compound, liquid polyhydroxy compound derivative... ... 1. A flowable composition for application to a **bone** defect site to promote new **bone** growth

at the **site** which comprises a new **bone growth**-inducing amount of demineralized **osteogenic bone** powder in **a** biocompatible **carrier**, the **carrier** being **selected from** a member of the **group** consisting **of** liquid polyhydroxy compound, liquid polyhydroxy compound derivative, liquid solution of solid polyhydroxy compound, liquid solution... ... A flowable composition for application to a **bone** defect site to promote new **bone** growth at the site which comprises a **new bone** growth-inducing amount of **dimineralized osteogenic bone** powder in a biocompatible **carrier**, the **carrier** being selected from a member **of the** group consisting of liquid **polyhydroxy** compound, **liquid** polyhydroxy compound ester, liquid solution of solid polyhydroxy compound, liquid solution of solid polyhydroxy compound ester and mixtures thereof, wherein the **carrier** is on of the following components (i)-(iv); (i) the **carrier** is selected **from** the group consisting of glycerol, glycerol monoester and glycerol diester; (**ii**) the **carrier** is selected from the group consisting of monosaccharide, monosaccharide ester, disaccharide, disaccharide ester, **oligosaccharide**, oligosaccharide ester and mixture thereof; (iii) the **carrier** is a fatty acid monoester dissolved in a solvent which is a different **liquid** polyhydroxy compound and/or ester thereof; and (iv) the **carrier** is glycerol monolaurate dissolved in a solvent.... ... A flowable composition for application to a **bone** defect site to promote new **bone** growth at the site which comprises a new **bone** growth-inducing **amount** of demineralized **osteogenic bone** powder **in** a biocompatible liquid polyhydroxy compound and/or ester **thereof** as a **carrier** for the **bone powder**. wherein the liquid polyhydroxy compound and/or ester thereof is selected from the **group** consisting of **glycerol** monoesters and diesters of glycerol derived from low molecular weight carboxylic acids, ethylene glycol, diethylene

27/3,K/3 (Item 1 from file: 155)
DIALOG(R)File 155: MEDLINE(R)

11738052 **PMID:** 8526921

Sequential analysis of gene expression after an osteogenic stimulus: c-fos expression is induced in osteocytes.

Inaoka T; Lean J M; Bessho T; Chow J W; Mackay A; Kokubo T; Chambers T J
Department of Histopathology, St. George's Hospital Medical School, London, UK.
Biochemical and biophysical research communications (UNITED STATES) Dec 5 1995 , 217 (1) p264-70 , **ISSN:** 0006-291X--Print 0006-291X--Linking **Journal Code:** 0372516
Publishing Model Print
Document type: Journal Article; Research Support, Non-U.S. Gov't
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Sequential analysis of gene expression after an osteogenic stimulus: c-fos expression is induced in osteocytes.

...vertebrae of rats. We used this model to assess expression of genes induced by mechanical **loading**. Bulk preparations of mRNA extracted after **loading** did not show > 2-fold increases in expression of mRNA for **matrix** proteins or **growth factors** in Northern blotting analysis. c-jun was undectable. However, c-fos showed a 4-fold increase in expression within 60 mins of **loading**, before returning to control levels by 4 hrs. This increase was associated with intense signals in in situ hybridization, not seen in any nonloaded vertebrae, for c-fos over **cortical** osteocytes: thus osteocytes respond to mechanical **loading** with c-fos expression so strongly as to be visible even in the bulk RNA... ...results represent persuasive evidence for a role for osteocytes, and for c-fos, in the **osteogenic** response of **bone** to mechanical stimulation. (
Descriptors: ; Animals; **Bone Matrix**--metabolism--ME; Gene Expression; Growth Substances--genetics--GE; In Situ Hybridization; Models, Biological; Proteins--genetics...
Named Person:

27/3,K/4 (Item 2 from file: 155)
DIALOG(R)File 155: MEDLINE(R)

11457462 **PMID:** 7864109
Increased insulin-like growth factor I mRNA expression in rat osteocytes in response to mechanical stimulation.

Lean J M; Jagger C J; Chambers T J; Chow J W
Department Histopathology, St. George's Hospital Medical School, London, United Kingdom.
American journal of physiology (UNITED STATES) Feb 1995 , 268 (2 Pt 1) pE318-27 , **ISSN:** 0002-9513--Print 0002-9513--Linking **Journal Code:** 0370511
Publishing Model Print
Document type: Journal Article; Research Support, Non-U.S. Gov't
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Increased insulin-like growth factor I mRNA expression in rat osteocytes in response to mechanical stimulation.

...recently developed an experimental model whereby a single 10-min episode of mechanical stimulation induces **bone** formation in the eighth caudal vertebra of 13-wk-old rats. We used this model to relate the kinetics of the **bone**-forming response, as measured by administration of fluorescent markers, to an in situ hybridization analysis of changes in mRNA for two **matrix** proteins (type I collagen and osteocalcin) and a **growth factor** implicated in the regulation of **bone** formation [insulin-like **growth factor** I (IGF-I). We found that increased fluorochrome labeling was accompanied by an

increase in the proportion of trabecular **bone** surfaces on which transcripts for collagen type I and osteocalcin were detectable, from < 3 to 25% 72 h after **loading**. IGF-I expression on trabecular surfaces showed a slightly earlier increase. We also noted intense hybridization for IGF-I in osteocytes in the diaphyseal **cortex** and in metaphyseal trabeculae. This was observed only in **loaded bones**, within 6 h of **loading**, and became undetectable in trabecular osteocytes 48 h and **cortical** osteocytes 120 h after **loading**. This is the first identification of a specific mRNA species in osteocytes after mechanical stimulation. Its production before the increase in transcription of **matrix** protein mRNA, and before the transcription of IGF-I mRNA in **bone** surface cells, represents persuasive evidence for a role for osteocytes, and for IGF-I, in the **osteogenic** response of **bone** to mechanical stimulation. (
Descriptors: *Insulin-Like **Growth Factor** I--genetics--GE; *Osteocytes --metabolism--ME; *RNA, Messenger--metabolism--ME
Chemical Name: Fluorescent Dyes; RNA, Messenger; Osteocalcin; Insulin-Like **Growth Factor** I; Collagen

27/3,K/5 (Item 3 from file: 155)
DIALOG(R)File 155: MEDLINE(R)

11082156 **PMID:** 8156691
Recombinant human bone morphogenetic protein-7 induces healing in a canine long-bone segmental defect model.

Cook S D; Baffes G C; Wolfe M W; Sampath T K; Rueger D C
Department of Orthopaedic Surgery, Tulane University School of Medicine, New Orleans, Louisiana 70112.
Clinical orthopaedics and related research (UNITED STATES) Apr 1994 , (301) p302-12 , **ISSN:** 0009-921X--Print 0009-921X--Linking **Journal Code:** 0075674
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Recombinant human bone morphogenetic protein-7 induces healing in a canine long-bone segmental defect model.

...defect model was used in adult male dogs to examine the effect of recombinant human **bone** morphogenetic protein-7 (recombinant human **Osteogenic** Protein-1 [rhOP-1]; Creative Biomolecules, Hopkinton, Massachusetts) on new **bone** induction and healing, and to test the mechanical strength of healed 2.5-cm segmental **bone** defects. The rhOP-1 composites consisted of a **carrier** of 500 mg of demineralized, guanidine-extracted, insoluble bovine **bone matrix** (collagen **carrier**), reconstituted with rhOP-1. Six animals received 1200 micrograms rhOP-1 unilaterally and were killed at 12 weeks for torsional

load-to-failure testing using the contralateral side as a control. Two further animals received varying... ...radiographically by eight weeks. A control composite, containing no rhOP-1, failed to induce new **bone** formation at any time. Histologically, rhOP-1-treated sites examined at 16 weeks had formation of new **cortical** and cancellous **bone**, with normal appearing marrow elements in the reconstituted medullary canal. The torsional strength of the... (
Descriptors: *Growth Substances--pharmacology--PD; *Osteogenesis--**drug** effects --DE; *Proteins--pharmacology--PD; *Ulna--**drug** effects--DE; *Ulna --surgery--SU ; Animals; **Bone** Morphogenetic Proteins; Cattle; Collagen; Dogs; **Drug Carriers**; Recombinant Proteins--pharmacology--PD; Transforming **Growth Factor** beta--pharmacology--PD; Ulna --radiography--RA
Named Person:
Chemical Name: Bone Morphogenetic Proteins; **Drug Carriers**; Growth Substances; Proteins; Recombinant Proteins; Transforming **Growth Factor** beta; Collagen

27/3,K/6 (Item 4 from file: 155)
DIALOG(R)File 155: MEDLINE(R)

11035500 **PMID:** 8297380
Localization of osteogenic protein-1 (bone morphogenetic protein-7) during human embryonic development: high affinity binding to basement membranes.

Vukicevic S; Latin V; Chen P; Batorsky R; Reddi A H; Sampath T K
Department of Anatomy, School of Medicine, Zagreb, Croatia.
Biochemical and biophysical research communications (UNITED STATES) Jan 28 1994 , 198 (2) p693-700 , **ISSN:** 0006-291X--Print 0006-291X--Linking **Journal Code:** 0372516
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Localization of osteogenic protein-1 (bone morphogenetic protein-7) during human embryonic development: high affinity binding to basement membranes.

Osteogenic protein-1 (OP-1) is a member of the **bone** morphogenetic protein subfamily of the transforming **growth factor**-beta (TGF-beta) superfamily. Since members of the TGF-beta superfamily have a role in... ...1 was observed in: sclerotome, hypertrophied chondrocytes, osteoblasts, periosteum, epithelial cells of the adrenal "provisional **cortex**" and the convoluted tubules of developing kidneys. In the developing lungs, pancreas and skin, OP... ...membranes underlying the epithelium. In vitro binding studies of 125I-OP-1 to various extracellular **matrix** components revealed high affinity of OP-1 for type IV collagen and less for heparin, collagen types I and VI. Present findings suggest that, in

addition to **bone** formation, OP-1 could have other important regulatory roles in human embryogenesis with high binding... (
Descriptors: *Basement Membrane--chemistry--CH; ***Bone** Morphogenetic Proteins; *Embryo, Mammalian--chemistry--CH; *Proteins--isolation and purification --IP; *Transforming **Growth Factor** beta **;** Adrenal Glands--anatomy and histology--AH; Adrenal Glands--chemistry--CH; **Bone** Morphogenetic Protein 7; **Bone** and **Bones**--anatomy and histology--AH; **Bone** and **Bones**--chemistry--CH; Cartilage --anatomy and histology--AH; Cartilage--chemistry--CH; Embryo, Mammalian --anatomy and histology--AH; Extracellular **Matrix**--chemistry--CH; Extracellular **Matrix**--metabolism--ME; Humans; Kidney--anatomy and histology--AH; Kidney--chemistry--CH; Proteins--metabolism--ME
Named Person:
Chemical Name: BMP7 protein, human; **Bone** Morphogenetic Protein 7; **Bone** Morphogenetic Proteins; Proteins; Transforming **Growth Factor** beta

27/3,K/7 (Item 5 from file: 155)
DIALOG(R)File 155: MEDLINE(R)

10412447 **PMID:** 1502568
[The effect of various sterilization procedures on the osteoinductive properties of demineralized bone matrix]

Der Einfluss verschiedener Sterilisationsverfahren auf die osteoinduktiven Eigenschaften demineralisierter Knochenmatrix.
Hallfeldt K K; Kessler S; Puhlmann M; Mandelkow H; Schweiberer L
Chirurgische Klinik, Klinikum Innenstadt, Ludwig-Maximilians-Universitat Munchen.
Der Unfallchirurg (GERMANY) Jul 1992 , 95 (7) p313-8 , **ISSN:** 0177-5537--Print 0177-5537--Linking **Journal Code:** 8502736
Publishing Model Print
Document type: Comparative Study; English Abstract; Journal Article; Research Support, Non-U.S. Gov't
Languages: GERMAN
Main Citation Owner: NLM
Record type: MEDLINE; Completed
[The effect of various sterilization procedures on the osteoinductive properties of demineralized bone matrix]

To minimize potential infection following the transplantation of allogeneic **bone**, extremely rigorous selection of donors and careful processing and storage of samples are required. Other major problems related to allogeneic transplants, such as reduced **osteogenic** properties and immunological reactions, led to the development of demineralized **bone matrix** (DBM). This osteoinductive **bone** extract is largely free of antigens and is easy to produce. However, to eliminate the ... ...influence of different

sterilization techniques on the osteoinductive properties of DBM. A series of 76 **cortical** defects (drill holes) 0.6 cm in diameter in the tibiae of 11 Merino sheep were filled with DBM in addition to autogeneic and allogeneic cancellous **bone**. Prior to implantation DBM was sterilized by autoclaving, gamma irradiation, or application of ethylene oxide... ...alcohol. A further 12 drill holes were left empty as controls. The formation of new **bone** was examined 3 and 6 weeks postoperatively, using histological, fluorescent-optical and microradiographical techniques. The amount of newly formed **bone** was also quantified. Apart from autoclaved DBM all **matrix** grafts showed excellent new **bone** formation following sterilization, by far exceeding the formation with allogeneic cancellous **bone**. (
Descriptors: ***Bone Matrix**--pathology--PA; ***Bone** Regeneration --physiology--PH; ***Bone** Transplantation--pathology--PA; *Sterilization--methods--MT **;** Animals; **Bone** Regeneration--**drug** effects--DE; **Bone** Regeneration--radiation effects--RE; Ethanol--pharmacology--PD; Ethylene Oxide--pharmacology--PD; Gamma Rays; Sheep; Tibia...
Named Person:

27/3,K/8 (Item 6 from file: 155)
DIALOG(R)File 155: MEDLINE(R)

10311108 **PMID:** 1576975
Growth hormone stimulates cortical bone formation in immature hypophysectomized rats.

Schiltz P M; Ohta T; Glass D; Mohan S; Baylink D J
Department of Orthopedic Surgery, Loma Linda University, CA 92350.
Endocrine research (UNITED STATES) 1992 , 18 (1) p19-30 , **ISSN:** 0743-5800--Print 0743-5800--Linking **Journal Code:** 8408548
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Growth hormone stimulates cortical bone formation in immature hypophysectomized rats.

Daily subcutaneous **injections** of rat derived growth hormone to immature, hypophysectomized rats stimulated significant increases in body weight... ...serum osteocalcin, skeletal alkaline phosphatase and incorporation of radioactive thymidine and proline into the compact **bone** of femurs and tibiae. Equimolar doses of insulin-like **growth factor**-II did not produce similar biological effects. The data support the contention that growth hormone at equimolar concentration is a stronger **osteogenic** agent than is insulin-like **growth factor**-II in vivo. (
Descriptors: ***Bone** Development--**drug** effects--DE; *Growth Hormone --

pharmacology--PD; *Hypophysectomy **;** Alkaline Phosphatase--metabolism--ME; Animals; **Bone** and **Bones** --enzymology--EN; Insulin-Like **Growth Factor** II--pharmacology --PD; Osteocalcin--blood--BL; Proline--metabolism--ME; Rats; Thymidine --metabolism--ME; Weight Gain--**drug** effects--DE
Named Person:
Chemical Name: Osteocalcin; Proline; Thymidine; Insulin-Like **Growth Factor** II; Growth Hormone; Alkaline Phosphatase

27/3,K/9 (Item 7 from file: 155)
DIALOG(R)File 155: MEDLINE(R)

10056180 **PMID:** 1919853
Response of cortical bone to local controlled release of sodium fluoride: the effect of implant insertion site.

Anderson P A; Copenhaver J C; Tencer A F; Clark J M
Department of Orthopaedic Surgery, University of Washington, Seattle.
Journal of orthopaedic research - official publication of the Orthopaedic Research Society (UNITED STATES) Nov 1991 , 9 (6) p890-901 , **ISSN:** 0736-0266--Print 0736-0266--Linking **Journal Code:** 8404726
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Response of cortical bone to local controlled release of sodium fluoride: the effect of implant insertion site.

In a previous experiment, sodium fluoride in a biodegradable polymer **matrix** was introduced into the femoral canal of the rabbit and **bone** formation was compared with contralateral controls. We noted significant **bone** formation, but only in the distal third of the periosteal surface of the femur. This experiment was performed to distinguish fluoride-induced periosteal **bone** formation from that due to the reactive **osteogenic** changes associated with local injury caused by the process of implantation. A proximal approach on... ...the implants in rabbits. Femurs were removed after 30 days and tested for stiffness and **load** to failure. The cross-sectional area of mineralized **bone** was determined at proximal, midshaft, and distal locations. Fluorescent **bone** tissue growth labels were **injected** at weekly intervals to measure the rate of new periosteal **bone** formation. The results were compared with a control group that received sham implants. Results showed... ...in those exposed to fluoride. A significant increase was found in the fluoride group in **load** to failure, along with cross-sectional area of mineralized **bone**, and periosteal growth rates compared with the control group, but no difference was seen in... ...changes in serum fluoride level after implantation of the poly L-lactic acid/sodium

fluoride **matrix**. These results show that fluoride exerts its **osteogenic** effects equally at proximal, midshaft, and distal regions of diaphyseal **bone** and is uninfluenced by the site of local injury due to insertion of the implant. (
Descriptors: *Femur--**drug** effects--DE; *Sodium Fluoride--pharmacology--PD ; Animals; **Bone** Development--**drug** effects--DE; **Bone** Development--physiology--PH; **Drug** Implants; Femur--metabolism--ME; Femur--physiology--PH; Rabbits; Sodium Fluoride--metabolism--ME; Wounds and Injuries...
Named Person:
Chemical Name: Drug Implants; Sodium Fluoride

27/3,K/10 (Item 8 from file: 155)
DIALOG(R)File 155: MEDLINE(R)

09376460 **PMID:** 2606922 **Record Identifier:** 90110261
Study of the osteoconductive properties of bioactive glass fibers.

Pazzaglia U E; Gabbi C; Locardi B; Di Nucci A; Zatti G; Cherubino P
Clinica Ortopedica dell'Universita di Pavia, Italy.
Journal of biomedical materials research (UNITED STATES) Nov 1989 , 23 (11) p1289-97 , **ISSN:** 0021-9304--Print 0021-9304--Linking **Journal Code:** 0112726
Publishing Model Print
Document type: Journal Article; Research Support, Non-U.S. Gov't
Languages: ENGLISH
Main Citation Owner: NLM
Other Citation Owner: NASA
Record type: MEDLINE; Completed
Bioactive glass fibers have been prepared and implanted in **cortical** defect and in muscle. The fibers can act as a substrate for **bone** apposition, when implanted in a **cortical** defect, and become incorporated in the new **bone matrix**. The same results were obtained when fibers were implanted in a muscle pouch together with **bone** marrow cells. An intense inflammatory reaction was observed when bioactive glass fibers were implanted in muscle; the reaction was milder when fibers were implanted in **bone** or in muscle together with **bone** marrow cells. This fact supports the hypothesis that **osteogenic** cells adhere in an early phase to the substrate and prevent recognition of the foreign material by inflammatory cells. This appears to be a fundamental condition for direct **bone matrix** apposition on the surface of fibers. (
Descriptors: *Biocompatible Materials--pharmacology--PD; ***Bone Matrix** --physiology--PH; ***Bone** and **Bones**--physiology--PH; *Glass; *Osteogenesis--**drug** effects--DE ; Animals; Biocompatible Materials--adverse effects--AE; **Bone** and **Bones**--cytology--CY; **Bone** and **Bones**--**drug** effects--DE; Inflammation--chemically induced--CI; Materials Testing; Muscles--cytology--CY; Muscles--**drug** effects--DE; Rabbits; Rats; Rats, Inbred Strains

Named Person:

Dialog eLink: USPTO Full Text Retrieval Options
27/3,K/11 (Item 9 from file: 155)
DIALOG(R)File 155: MEDLINE(R)

09314669 **PMID:** 2809825
Chemical sterilization of bacterially contaminated bone without destruction of osteogenic potential.

Dahners L E; Hoyle M
Department of Surgery, University of North Carolina, Chapel Hill 27599-7055.
Journal of orthopaedic trauma (UNITED STATES) 1989 , 3 (3) p241-4 , **ISSN:** 0890-5339--Print 0890-5339--Linking **Journal Code:** 8807705
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Chemical sterilization of bacterially contaminated bone without destruction of osteogenic potential.

A method to sterilize **bone** that has been contaminated or to assure sterility of allografts would be quite useful in the practice of orthopedics. The literature documents the **osteogenic** potential of demineralized **bone matrix**, prepared by treatment with hydrochloric acid and ethanol. We became interested in whether these potent antibacterial agents could render contaminated **bone** sterile and thus usable. Thus, we tested immersion in 70% ethanol or 0.6 N hydrochloric acid as sterilization methods for contaminated **bone** specimens. **Bone** fragments were (heavily) surface contaminated for 30-60 s by immersion in a suspension of... ...were incubated in broth culture for 14 days. Using 70% ethanol, 80-90% of contaminated **bone** specimens were sterile in 4 h and all were sterile in 8 h. Using 0.6 N hydrochloric acid, only 10% of **bone** specimens contaminated with Staphylococcus aureus, 60% with Escherichia coli, and 90% with Bacillus subtilis were... ...Consequently, 70% ethanol could possibly by used as an antiseptic or sterilizing agent for contaminated **bone**, although we feel that such **bone** should also be demineralized. Ethanol should not be used for routine treatment of mineralized **cortical bone** as it has been shown to diminish the already poor **osteogenic** potential of **cortical bone**. (
Descriptors: *Bacterial Infections--**drug** therapy--DT; ***Bone** Diseases-- **drug** therapy--DT; ***Bone** Transplantation; *Sterilization --methods--MT **;** ...Acid--administration and dosage--AD; Hydrochloric Acid--pharmacology --PD; Hydrochloric Acid--therapeutic use--TU; Osteogenesis--**drug** effects--DE
Named Person:

27/3,K/12 (Item 10 from file: 155)
DIALOG(R)File 155: MEDLINE(R)

08966212 **PMID:** 3208511
Isolation, partial purification and in vitro characterization of osteogenic inhibitory protein.

Brownell A G; Gerth N; Finerman G A
Department of Biology, Chapman College, Orange, CA 92666.
Connective tissue research (ENGLAND) 1988 , 17 (4) p261-75 , **ISSN:** 0300-8207--Print 0300-8207--Linking **Journal Code:** 0365263
Contract/Grant No.: AR37440; AR; NIAMS NIH HHS United States
Publishing Model Print; Erratum in Connect Tissue Res 1988;18(1):following 65
Document type: In Vitro; Journal Article; Research Support, U.S. Gov't, P.H.S.
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Isolation, partial purification and in vitro characterization of osteogenic inhibitory protein.

A noncollagenous protein has been extracted and partially purified from adult **cortical bone**. This protein copurifies with another **bone matrix** protein, **bone** morphogenetic protein, until treatment with nonionic detergents. Characterization of the biological activity of this new protein has demonstrated it to be a potent **osteogenic** inhibitor in vitro. The inhibitor antagonizes the chondrogenic activity of devitalized, demineralized **bone matrix** as well as the activity of soluble **bone** morphogenetic protein. **Bone matrix** induced collagen and glycosaminoglycan synthesis are both inhibited in the presence of various concentrations of the **osteogenic** inhibitory protein. Inhibition of collagen synthesis required the presence of **osteogenic** inhibitory protein from the initiation of the tissue culture while glycosaminoglycan synthesis could be inhibited at any stage of differentiation. We postulate that this **osteogenic** inhibitory protein is essential in normal homeostatic **bone** metabolism, perhaps acting directly on **bone** morphogenetic protein. (
Descriptors: ; Animals; **Bone** Morphogenetic Proteins; Cartilage--growth and development--GD; Cartilage--physiology--PH; Cattle; Collagen--biosynthesis --BI; Electrophoresis, Polyacrylamide Gel; Glycosaminoglycans--biosynthesis --BI; Muscles--**drug** effects--DE; Muscles--physiology--PH; Osteogenesis--**drug** effects--DE; Proteins--pharmacology--PD; Rats; Sodium Dodecyl Sulfate--diagnostic use--DU
Named Person:
Chemical Name: Bone Morphogenetic Proteins; Glycosaminoglycans; Proteins; Sodium Dodecyl Sulfate; Collagen

27/3,K/13 (Item 11 from file: 155)

08185403 **PMID:** 3528218 **Record Identifier:** 86304925; PMC423638

Bone deficit in ovariectomized rats. Functional contribution of the marrow stromal cell population and the effect of oral dihydrotachysterol treatment.

Tabuchi C; Simmons D J; Fausto A; Russell J E; Binderman I; Avioli L V

Journal of clinical investigation (UNITED STATES) Sep 1986 , 78 (3) p637-42 ,
ISSN: 0021-9738--Print 0021-9738--Linking **Journal Code:** 7802877
Contract/Grant No.: AM16391; AM; NIADDK NIH HHS United States
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Document type: Journal Article; Research Support, U.S. Gov't, P.H.S.
Languages: ENGLISH
Main Citation Owner: NLM
Other Citation Owner: NASA; NLM
Record type: MEDLINE; Completed

Bone deficit in ovariectomized rats. Functional contribution of the marrow stromal cell population and the effect...

This study investigates the proliferative and **osteogenic** role of marrow stromal/osteoprogenitor cells in the development of the **cortical bone** deficit in ovariectomized (OVX) female rats. In vitro, clonal growth of marrow stromal cells from... ...sham-operated controls). Yet in vivo, cells from sham-operated and OVX rats had equal **osteogenic** potential in several in vivo experimental situations, such as in intraperitoneally implanted millipore diffusion chambers and in intramuscular implants of marrow plus osteoinductive **bone matrix** (composite grafts). Long-term (6 mo) dihydrotachysterol (DHT) treatment of OVX rats enhanced their in vitro proliferative

potential and clonal growth, as well as their **osteogenic** expression in composite grafts. The observation that the in vivo **osteogenic** performance of OVX rat marrow stromal cells was normal at extraosseous sites suggests that the mechanisms leading to osteopenia may involve an abnormality in cell-**matrix** interactions. (
Descriptors: ***Bone** Diseases--pathology--PA; ***Bone** Marrow--pathology--PA; *Dihydrotachysterol--therapeutic use--TU; *Ovariectomy **;** Animals; **Bone** Diseases--**drug** therapy--DT; **Bone** Diseases--etiology--ET; **Bone** Marrow Transplantation; **Bone Matrix**--physiopathology--PP; **Bone Matrix** --transplantation--TR; Cell Division; Cells, Cultured; Disease Models, Animal; Fibroblasts--pathology--PA; Fibroblasts--physiology--PH...
Named Person:

27/3,K/14 (Item 12 from file: 155)
DIALOG(R)File 155: MEDLINE(R)

06994319 **PMID:** 6754199
The role of bone marrow in bone morphogenetic protein-induced repair of femoral massive diaphyseal defects.

Takagi K; Urist M R
Clinical orthopaedics and related research (UNITED STATES) Nov-Dec 1982 , (171) p224-31 , **ISSN:** 0009-921X--Print 0009-921X--Linking **Journal Code:** 0075674
Publishing Model Print
Document type: Comparative Study; Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
The role of bone marrow in bone morphogenetic protein-induced repair of femoral massive diaphyseal defects.

...year-old rats was resected and the reparative process completely blocked by distraction of the **bone** ends with an omega-shaped wire. **Bone** repair extended retrograde instead of across the diaphyseal defect and invariably culminated in nonunion. New **bone** was induced to grow across the defect by implantation of **BMP**, and regeneration was similarly enhanced by transplantation of autologous marrow, but union was produced only by composite transplants of marrow and implants of **BMP**. Union occurred more rapidly from the transplant-implant composite than from autologous **cortical bone**. These observations suggest that **bone** marrow stroma cell include both pre-existing **osteogenic** precursor cells and mesenchymal cells that respond to **BMP** by differentiating into osteoblast for the repair of large femoral **bone** defects. (
Descriptors: ***Bone** Marrow Transplantation; *Femoral Fractures--therapy--TH; *Growth Substances--therapeutic use--TU; *Proteins--therapeutic use--TU **;** Animals; **Bone Matrix**--transplantation--TR; **Bone** Morphogenetic Proteins; **Bone** Regeneration--

drug effects--DE; Cattle; Femoral Fractures--physiopathology--PP; Rats; Rats, Inbred Strains; Wound Healing--**drug** effects--DE
Named Person:
Chemical Name: Bone Morphogenetic Proteins; Growth Substances; Proteins

27/3,K/15 (Item 1 from file: 5)
DIALOG(R)File 5: Biosis Previews(R)

13085110 **Biosis No.:** 199598552943
An in-vivo model for the rapid assessment of skeletal effects of anabolic agents

Author: Li X J (Reprint); Ma Y F; Jee W S S; Underwood R A; Sietsema W K
Author Address: Genetics Inst., One Burtt Road, Andover, MA 01810, USA**USA
Journal: Bone (New York) 17 (4 SUPPL.): p 243S-247S 1995 1995
ISSN: 8756-3282
Document Type: Article
Record Type: Abstract
Language: English

Abstract: ...cannula was inserted into the marrow cavity of the proximal tibia through the anterior-medial **cortex** 6 mm distal to the knee joint. The outer opening of the cannula was covered by skin. Agents with known anabolic skeletal effects or vehicle were **injected** daily for 10 days into the marrow region by a small needle passing through the cannula. Rats were also **injected** subcutaneously with a fluorescent **bone** marker to label the newly formed **bone**. **Injection** sites were fixed, embedded, and sectioned for histomorphometric analysis of trabecular **bone**. PTH and PGE-2 stimulated a large amount of new trabecular **bone** formation in regions proximal and distal to the **injection** site as measured by histomorphometry. Control groups showed minimal **bone** formation, limited to formation of a thin layer of bony shell immediately surrounding the cannula. The profound anabolic skeletal effects of PTH and PGE-2 seen in this Local **Injection** Model are similar to those seen in systemic **injection** (i.e. subcutaneous **injection** in intact or castrated male and female rats) previously reported. This Local **Injection** Model combines numerous advantages of in vivo models (systemic **injection**) and in vitro models when assessing agents with anabolic skeletal activities. Compared to conventional in vivo systemic **injection** models, this model enables detection of anabolic skeletal effects using very small quantities (in mu ... ...short treatment period (lt 10 days). Compared to in vitro models, this model allows the **drug** to be tested under an intact **bone** marrow microenvironment (presence of **osteogenic** cells and other supporting cells, local stimulatory and inhibitory factors) and under a normal systemic...
DESCRIPTORS:
Miscellaneous Terms: Concept Codes: ...TRABECULAR **BONE**

27/3,K/16 (Item 2 from file: 5)
DIALOG(R)File 5: Biosis Previews(R)

08046863 **Biosis No.:** 198681010754
A WALKER 256 TUMOR-INDUCED OSTEOGENIC SMALL ANIMAL MODEL FOR THE EVALUATION OF TECHNETIUM-99M DIPHOSPHONATE RADIOPHARMACEUTICALS

Author: CHENG K T (Reprint); SHAW S M; PINKERTON T C; HOCH D J; VAN SICKLE D C
Author Address: SCH OF SCIENCE, DEP OF CHEMISTRY, PURDUE UNIV, W LAFAYETTE, INDIANA 47907, USA**USA
Journal: International Journal of Nuclear Medicine and Biology 12 (3): p 197-208 1985
ISSN: 0047-0740
Document Type: Article
Record Type: Abstract
Language: ENGLISH
A WALKER 256 TUMOR-INDUCED OSTEOGENIC SMALL ANIMAL MODEL FOR THE EVALUATION OF TECHNETIUM-99M DIPHOSPHONATE RADIOPHARMACEUTICALS

Abstract: A mammalian model has been developed for the in vivo evaluation of **bone** imaging agents. The model is based upon the quantification of a discrete, initial secondary periosteal osteogenesis induced in **cortical bone** immediately adjacent to an intramuscularly implanted Walker 256 tumor in Fisher 344 rats. Evaluation of the model consists of a histopathological examination of the periosteal **bone** formation, biodistribution studies on 90mTc-MDP and 99mTc-HMDP commercial kit preparations, and biodistribution studies on two 99mTc-HEDP component fractions isolated after anion exchange chromatogrpahic separations from an investigative "**carrier** added" preparation. Reversed phase HPLC separations of the 99mTc-MDP and 99mTc-HMDP commercial kit preparations illustrate distinct differences in chemical composition between the 2 **bone** agents.
Descriptors: RAT METHYLENE DIPHOSPHONATE HYDROXYMETHYLENE DIPHOSPHONATE HYDROXYETHYLIDENE DIPHOSPHONATE DIAGNOSTIC-**DRUG BONE** IMAGING AGENT PERIOSTEAL **BONE** FORMATION SKELETAL ABNORMALITY DIAGNOSIS MODEL PHARMACOKINETICS

27/3,K/17 (Item 1 from file: 972)
DIALOG(R)File 972: EMBASE

0076281439 **EMBASE/MEDLINE No:** 1995330728

Sterilization of partially demineralized bone matrix: The effects of different sterilization techniques on osteogenetic properties

Hallfeldt K.K.J.; Stutzle H.; Puhlmann M.; Kessler S.; Schweiberer L.
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Journal of Surgical Research (J. SURG. RES.) (United States) November 16, 1995 , 59/5 (614-620)
CODEN: JSGRA **ISSN:** 0022-4804
Item Identifier (DOI): 10.1006/jsre.1995.1213
Document Type: Journal ; Article **Record Type:** Abstract
Language: English **Summary language:** English

Sterilization of partially demineralized bone matrix: The effects of different sterilization techniques on osteogenetic properties

Transplantation of allogenic **bone** requires the thorough examination of donors as well as the careful processing and storage of... ...such as low osteoinductive properties and immunological reactions led to the development of partially demineralized **bone matrix** (PDBM). This highly **osteogenic bone** extract is largely free of antigens and easy to produce. However, in order to exclude... ...of 11 Merino sheep were filled with PDBM as well as autogenic or allogenic cancellous **bone**. Prior to implantation the PDBM was sterilized using autoclavation, gamma irradiation, ethylene oxide, or ethanol. Twelve empty drill holes served as controls. The extent of new **bone** formation was ascertained by histological, fluorescent-optical, and microradiographical examinations 3 and 6 weeks postoperatively. Furthermore, the amount of newly formed **bone** was measured quantitatively. Apart from autoclaved PDBM, all **matrix** grafts showed excellent new **bone** formation after sterilization, exceeding the results of allogenic cancellous **bone**.

Medical Descriptors:
* **bone** demineralization
allotransplantation; animal tissue; article; **bone** development; **bone matrix**; cancellous **bone**; **cortical bone**; nonhuman; priority journal; sheep; tibia
Orig. Descriptors:

27/3,K/18 (Item 2 from file: 972)
DIALOG(R)File 972: EMBASE

0075240653 **EMBASE/MEDLINE No:** 1993020195

Control of bone architecture by functional load bearing

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Journal of Bone and Mineral Research (J. BONE MINER. RES.) (United States) December 1, 1992 , 7/SUPPL. (S369-S375)
CODEN: JBMRE **ISSN:** 0884-0431
Document Type: Journal ; Conference Paper **Record Type:** Abstract
Language: English **Summary language:** English

Control of bone architecture by functional load bearing

The continuing ability of the skeleton to withstand functional **loads** without damage requires that **bone** mass and architecture are adjusted according to the **loads** experienced. **Load** bearing is the only functional influence that requires a particular **bone** architecture, and functionally engendered strains within the **bone** tissue provide the only feedback containing the necessary information on the relationship between current architecture and prevailing **load** history. The specific strain-related objectives of the adaptive modeling and remodeling response to **load** bearing have not been adequately defined. They appear to be different for **cortical** and cancellous **bone** and vary according to **cortical** location. Experiments suggest that adaptive modeling and remodeling is sensitive to dynamic but not static strain change and that the **osteogenic** response to a period of dynamic strain is quickly saturated but is higher when the... ...high and the distribution of strain unusual. Presumably it is the cumulative effect of this **osteogenic** response to **load** bearing that normally maintains **bone** mass above that seen in disuse situations. Through their independent effects on **bone** cell behavior, nutritional and hormonal factors can enable, enhance, limit, or frustrate full expression of the **osteogenic** response to strain change. However, such systemic factors do not appear to be able to engender or successfully imitate the sustained cumulative local response to **load** bearing that normally maintains functionally appropriate **bone** mass and architecture. Experiments in vivo and in vitro suggest that in osteocytes and surface... ...is increased production of prostacyclin. Surface osteoblasts also produce prostaglandin E. Only 5 minutes after **loading**, glucose-6-phosphate dehydrogenase activity in osteocytes is increased in a local strain magnitude-related... ...the G6PD response in both osteocytes and osteoblasts, but only PGI SUB 2 imitates the **loading**-related increase in RNA in these two cell types. Indomethacin reduces the **osteogenic** response to **loading** in vivo and both the G6PD and RNA responses to **loading** in vitro. We hypothesize that the strain-related increase in PGE influences the synthetic activity of surface **bone** cells directly, whereas the strain-related increase in PGI SUB 2 additionally influences modeling and remodeling through the production of a cytokine or **growth factor** for which the **loading**-related RNA is coded.

It may be at the stage of cytokine interaction that the potentially competing or complementary effects on modeling and remodeling of the **loading** and hormonal environments is resolved.

Drug Descriptors:

*

cytokine--endogenous compound--ec; glucose 6 phosphate dehydrogenase --endogenous compound--ec; **growth factor**--endogenous compound --ec; indometacin; prostaglandin e1--endogenous compound--ec; prostaglandin e2--endogenous compound--ec; rna...

Medical Descriptors:

* **bone** structure; *weight bearing

adaptation; animal cell; animal tissue; **bone** mass; **bone** remodeling; cell activity; chick embryo; conference paper; enzyme activity; nonhuman; osteoblast; osteocyte; stress strain relationship

27/3,K/19 (Item 3 from file: 972)
DIALOG(R)File 972: EMBASE

0073300614 **EMBASE/MEDLINE No:** 1986019648

A Walker 256 tumor-induced osteogenic small animal model for the evaluation of [(99m)Tc] diphosphate radiopharmaceuticals

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International Journal of Nuclear Medicine and Biology (INT. J. NUCL. MED. BIOL.) (United Kingdom) December 1, 1985 , 12/3 (197-208)
CODEN: IJNMC **ISSN:** 0047-0740
Item Identifier (DOI): 10.1016/0047-0740(85)90026-9
Document Type: Journal ; Article **Record Type:** Abstract
Language: English

A Walker 256 tumor-induced osteogenic small animal model for the evaluation of [(99m)Tc] diphosphate radiopharmaceuticals

A mammalian model has been developed for the in vivo evaluation of **bone** imaging agents. The model is based upon the quantification of a discrete, initial secondary periosteal osteogenesis induced in **cortical bone** immediately adjacent to an intramuscularly implanted Walker 256 tumor in Fisher 344 rats. Evaluation of the model consists of a histopathological examination of the periosteal **bone** formation, biodistribution studies on SUP 99mTc-MDP and SUP 99mTc-HMDP commercial kit

preparations, and... ...two SUP 99mTc-HEDP component fractions isolated after anion exchange chromatographic separations from an investigative '**carrier** added' preparation. Reversed phase HPLC separations of the SUP 99mTc-MDP and SUP 99mTc-HMDP commercial kit preparations illustrate distinct differences in chemical composition between the two **bone** agents.

Medical Descriptors:

*** bone** development; ***drug** accumulation; *rat; *skeleton radiography; *tumor model; *walker carcinoma

animal model; **bone**; diagnosis; intravenous **drug** administration; nonhuman; priority journal

Orig. Descriptors:

SECTION HEADINGS:

Cancer

Nuclear Medicine

Drug Literature Index

27/3,K/20 (Item 4 from file: 972)
DIALOG(R)File 972: EMBASE

0071934636 **EMBASE/MEDLINE No:** 1981125260

Osteogenic phenomena across endosteal bone-implant spaces with porous surfaced intramedullary implants

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Acta Orthopaedica Scandinavica (ACTA ORTHOP. SCAND.) (Denmark) June 29, 1981 , 52/2 (145-153)
CODEN: AOSAA **ISSN:** 0001-6470
Document Type: Journal **;** Article **Record Type:** Abstract
Language: English

Osteogenic phenomena across endosteal bone-implant spaces with porous surfaced intramedullary implants

Porous surfaced femoral components of hip prostheses stabilized by tissue ingrowth are often situated a certain distance away from the endosteal **cortex** in the diaphysis. The purpose of this study was to examine the significance of this space between an implant and the **cortex** on **bone** growth into the **porous** surface of the implant. Intramedullary rods of different diameters with **porous** surface regions made of powder metal were inserted into the femurs of adult beagles. The... ...of 2.5, 3.2, 4.5, and 5.5 millimeters; this

variation produced endosteal **bone**-implant surface spaces ranging from 0 to 4 millimeters. The animals were sacrificed at 4... ...that by 12 weeks the implants became gradually surrounded by a thin shell of spongy **bone** which was joined to the endosteal **cortex** by bony trabeculae. This feature was most prominent for implants which were approximately 2 millimeters or less from the endosteum. Denser, more haversian-like **bone** developed up to and within those areas of implants which were in contact with the **cortex**. The development of this intramedullary type of **bone** could significantly contribute to the fixation strength of clinical **porous** surfaced prostheses whose stems do not completely fill the medulla.

Medical Descriptors:

*** bone** development; ***bone** graft; ***bone** growth; *implant; *total hip prosthesis animal experiment; **bone**; dog; **drug** screening; histology

Orig. Descriptors:

SECTION HEADINGS:

Orthopedic Surgery

Drug Literature Index

Surgery

27/3,K/21 (Item 1 from file: 103)

DIALOG(R)File 103: Energy SciTec

06035469 NLM; EDB-86-121904

Title: Walker 256 tumor-induced osteogenic small animal model for the evaluation of (99mTc) diphosphonate radiopharmaceuticals

Author(s): Cheng, K.T.; Shaw, S.M.; Pinkerton, T.C.; Hoch, D.J.; Van Sickle, D.C.

Sponsoring Organization: Not Available

Journal: Int. J. Nucl. Med. Biol.

Source: Journal: Int. J. Nucl. Med. Biol.; (United Kingdom); Journal Volume: 3 **Coden:** : IJNMC

Publication Date: 19850101

Availability Date: 20071101

OSTI Number(s): OSTI ID 5618843

Language: English

Medium/Dimensions: Size: Pages: 197-208

Title: Walker 256 tumor-induced osteogenic small animal model for the evaluation of (99mTc) diphosphonate radiopharmaceuticals

Abstract: A mammalian model has been developed for the in vivo evaluation of **bone** imaging agents. The model is based upon the quantification of a discrete, initial secondary periosteal osteogenesis induced in **cortical bone** immediately adjacent to an intramuscularly implanted Walker 256 tumor in Fisher 344 rats. Evaluation of the model consists of a histopathological examination of the periosteal **bone** formation, biodistribution studies on 99mTc-MDP and 99mTc-HMDP commercial kit preparations, and biodistribution studies on two 99mTc-HEDP component fractions isolated after anion

exchange chromatographic separations from an investigative **carrier** added preparation. Reversed phase HPLC separations of the 99mTc-MDP and 99mTc-HMDP commercial kit preparations illustrate distinct differences in chemical composition between the two **bone** agents.

Descriptors: ...**DRUGS**;
Broader Terms: